Montana Environmental Trust Group, LLC Trustee of the Montana Environmental Custodial Trust By Greenfield Environmental Trust Group, Inc., Member



PO Box 1230, East Helena, Montana 59635 Telephone (1): (617) 448-9762 Telephone (2): (406) 227-4098 Facsimile: (866) 871-7668



May 20, 2010

SENT BY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Linda Jacobson (2 Copies)
RCRA Project Manager
US EPA Region VIII
8ENF-T
1595 Wynkoop Street
Denver, Colorado 80202-1129

Betsy Burns (1 Copy)
Environmental Protection Specialist
EPA Region VIII
Montana Office
10 West 15th St., Suite 3200
Helena, MT 59626

RECEIVED
MAY 2 5 2010
ECEJ

RE: Consent Decree Civil Action No. CV 98-3-H-CCL East Helena Site
Work Performed in late April 2010 and early May 2010; Progress Report #136

Dear Linda and Betsy:

On May 5, 1998, ASARCO and the United States Environmental Protection Agency (EPA) entered into a Consent Decree (the Decree) to further the objectives of the Resource Conservation and Recovery Act (RCRA) and the Clean Water Act (CWA). On December 9, 2009, the Montana Environmental Custodial Trust (the Custodial Trust) was established as part of the larger ASARCO bankruptcy settlement agreement approved by the Bankruptcy Court (SD, Texas) and the US Federal District Court (SD, Texas). A Consent Decree and Settlement Agreement regarding Montana Sites (the Settlement Agreement) was entered into by ASARCO, US Department of Justice (DOJ), US Environmental Protection Agency (EPA), the State of Montana (the State) and the Montana Environmental

Trust Group, LLC, not individually, but solely in its representative capacity as Trustee for the Montana Environmental Custodial Trust. The Settlement Agreement describes the role and responsibilities of the Custodial Trust, which include owning, managing, and overseeing the clean-up and revitalization of ASARCO's property in East Helena, Montana (the Site). The United States and the State of Montana are the two designated beneficiaries of the Custodial Trust.

Pursuant to the Settlement Agreement, a motion to reopen the Decree and substitute the Custodial Trust for ASARCO was granted by the US Federal District Court in January 2010. As of the date of this report, EPA, DOJ and the Custodial Trust are in the process of finalizing a First Modification to the Decree that will conform to the terms of the Settlement Agreement. The Custodial Trust submits this progress report under the Decree subject to and pending the finalization of the First Modification to the Decree. Nothing herein, or in the substitution, should be interpreted or construed to constitute an unqualified acceptance of the terms of the Decree by the Custodial Trust or a waiver or release of its right to a modification of the Decree consistent with the Settlement Agreement. The Custodial Trust reserves all rights to object to those parts of the Decree that it reasonably believes are inconsistent with the Settlement Agreement. As with this report, future progress reports prescribed by the Decree, as so amended, will be submitted to EPA by the Custodial Trust.

Section XII of the Decree (Reporting: Corrective Action) requires submittal of certified monthly progress reports to EPA to describe the actions taken to achieve compliance with the Decree. The reports are to be submitted to EPA no later than the twentieth (20th) day of the subsequent month. The following describes those activities that have occurred or are related to activities that took place during late April and early May of 2010. As to actions performed by ASARCO, the Custodial Trust's predecessor-in-interest, the descriptions are based on information and belief only. The historical steps taken to achieve compliance with the Decree are contained in previous monthly progress reports.

a. Describe the actions, progress, and status of projects which have been undertaken pursuant to Part VII of the Decree.

2009 Cleaning and Demolition Work Plan

On April 14, 2010, Cleveland Wrecking Company's sub-contractor, Northwest Lining and Geotexile initiated repairs to the liner areas damaged during 2009 demolition activities and resumed completing unfinished work. The repairs and completion work were finished on April 23, 2010.

RCRA Facility Investigation (RFI) Phase II Site Characterization and Risk Assessment Work Plans

1. <u>Installation of Piezometers/Staff Gages and Water Level Monitoring</u>

Groundwater and surface water level monitoring was initiated in April 2010 under three separate programs or "time-critical" tasks, including: the Groundwater/Surface Water Interaction Task (the GW/SW Interaction), the Supplemental Groundwater Level Monitoring Task (the Supplemental GW Levels); and the Southwest Lamping Field Groundwater Evaluation Task (the SW Lamping Field). The GW/SW Interaction and SW Lamping Field tasks are included in the Phase II RFI Site Characterization Work Plan. The Supplemental GW Levels task was added as a time-critical task to obtain continuous data regarding trends in water level fluctuations (hydrographs) between various surface water features and groundwater throughout the project area.

The piezometer and staff gage installation was completed and water level monitoring initiated in April 2010. The water level monitoring program (which encompasses the three tasks described above) includes sampling 42 sites – 13 for surface water sites and 29 for groundwater sites. Of the 29 groundwater sites, 20 are pre-existing monitoring wells and nine are piezometers installed in March/April 2010 specifically for the GW/SW Interaction task. Of the 42 sites, 17 have been instrumented with automated water level and temperature recording devices (transducers) programmed to record data at four-hour intervals. Water levels at the remaining 25 sites were manually recorded. The 42 monitoring sites are listed in Table 1 according to the specific monitoring program, along with a site description and dates the manual water level measurements were taken in April 2010. Monitoring locations are also shown on attached Figure 1. On April 21, 2010 the newly installed piezometers and staff gauges were surveyed for horizontal and vertical control. The following summarizes April's activities for each program.

2. <u>Supplemental Groundwater Level Monitoring Program (Supplemental GW Levels</u>

The Supplemental Groundwater Level program includes 7 wells, which are listed on Table 1 and shown on Figure 1. Each well is instrumented with a transducer that measures the water level in the well continuously, every four

hours. In addition, static water levels of these wells were collected on April 7, April 15, and May 5, 2010. Transducer data was downloaded on April 15 and May 5, 2010 and corrected for barometric pressure readings, collected by a barologger installed in APSD-8. The corrected data is shown in Figure 2. Water levels in these seven wells did not change significantly over this period.

3. Groundwater/Surface Water Interactions Study (GW/SW Interaction)

The GW/SW Interaction study includes 11 wells, 11 piezometers, and 11 surface water sites (Table 1, Figure 1). Static water levels and staff gauge readings at these sites were collected on April 8, April 15, and May 5, 2010. Of particular interest is the area between Lower Lake and Prickly Pear Creek (PPC), and the interaction of groundwater and surface water in this area. Piezometers have been installed at two locations within the PPC hyperemic zone (IP-102 and IP-103), and between the creek and Lower Lake (PZ-102 and PZ-103), with the piezometers located in line with monitoring wells APSD-7 and APSD-8 (Figure 1). In-stream piezometers (IP-102 and IP-103) are paired with surface water sites (PPC-102 and PPC-103) to determine if and when PPC is gaining or loosing water through this reach. All of these sites are instrumented with transducers. The pressure-corrected data from these sites is included in Figure 3. The data show that groundwater levels are generally higher than the corresponding creek levels, indicating the stream is recharged by groundwater in this area. However, this relationship reverses when the stream stage rises rapidly due to snowmelt runoff, as shown between 4/22/2010 and 4/23/2010 on Figure 3.

4. Southwest Lamping Field Groundwater Evaluation (SW Lamping Field)

The SW Lamping Field groundwater evaluation includes monitoring wells EH-128 and EH-132, which have exhibited elevated arsenic concentrations in groundwater since they were installed in the spring 2009 (Table 1, Figure 1). Both wells are instrumented with transducers measuring water levels every four hours. In addition, static water levels of these wells were collected on April 7, April 15, and May 5, 2010. The barometric pressure-corrected transducer data for these wells in included in Figure 4. As shown on Figure 4, water levels in these wells have been relatively stable to date. Of particular interest is the groundwater level response to the onset of flow in nearby Wilson Ditch. As of May 5, 2010 (when the transducers were last downloaded), there was no flow in the ditch. The ditch rider reported that the Wilson Ditch headgate was opened on May 17, 2010. The data collected to date will serve as background information for comparison to water levels once Wilson Ditch receives flow.

In summary, the water level data collected to date provides valuable background or baseline information for comparison to water levels to be recorded during spring runoff and Wilson Ditch flow. The information already collected in the vicinity of PPC and Lower Lake indicates that PPC is a gaining stream in this reach, except during periods of high stream stage resulting from runoff. The water level data will continue to be collected through the summer of 2010 and evaluated on a monthly basis.

5. Monitoring Well Drilling and Sampling

Three additional monitoring wells were installed in April 2010 to evaluate the groundwater quality upgradient of Seaver Park and downgradient of the former City of East Helena Landfill. Borehole drilling and monitoring well construction was conducted by Environmental West, using a B90 air rotary (Tubex) drill rig. Hydrometrics provided oversight during the drilling and construction of the monitoring wells. Drill cuttings and split spoon samples were used to log the subsurface lithology at each boring location. Each well was developed, following completion, by surging the well and pumping at least 10 well volumes out of the well. Well completion details are summarized in Table 2, and well logs are included as Attachment 1.

Monitoring Well	Completion Date	MP Elevation (feet)	Total Depth Cased (ft, bgs)	Screen Interval (ft, bgs)	Sand Pack (ft, bgs)	SWL (ft, bmp)	SWL Elevation (feet)
EH-200	4/12/10	3950¹	48	38-48	35-51	30.38	3920
EH-201	4/13/10	3970¹	119	99-119	96-119	100.00	3870
EH-202	4/13/10	3926.95	90	70-90	67-90	62.19	3864.76
PZ-36C	4/14/10	3855.88	25	20-25	17-25	18.39	3837.49

TABLE 2. WELL COMPLETION DETAILS

Drilling commenced on April 12, 2010 at the western most location (EH-200) on the R&D Property. The drilling program proposed installing paired wells at this location (and other locations), however, only one water bearing zone (40-42 feet) was encountered at this location. Therefore, only one well was completed. The

¹MP Elevation was taken with GPS, precision of +/- 1-foot.

boring was continued to a depth of 100 feet, and no additional water bearing zones were encountered. Bedrock was encountered at approximately 74 feet. Monitoring well EH-200 was completed at 48 feet, with ten feet of screen and a sand pack from 35 to 51 feet. The borehole was backfilled with bentonite from 51 to 100 feet.

Following completion of EH-200, the drilling rig was mobilized to the second location on R&D Property (EH-201). Drilling of the borehole for EH-201 began on April 12, 2010. The borehole was advanced to 120 feet. Drill cuttings were slightly moist to moist from 88 to 120 feet. After pulling out the drill stem and cleaning out the casing however, the well made a small amount of water. Due to the lack of any water bearing zones in the shallower sediments, only one well (EH-201) was completed at this location. Well EH-201 was completed on April 13, 2010 with 20 feet of screen (99 to 119 feet) and sand pack from 96 to 119 feet.

The downgradient landfill well (EH-202) was completed on April 13, 2010. The borehole was drilled to a total depth of 90 feet. Drill cuttings had varying amounts of moisture from 56 to 85 feet with water being encountered at approximately 85 feet. The well was completed with 20 feet of screen from 70 to 90 feet, and a sand pack from 67 to 90 feet. Only one well was proposed for this location.

The drilling program proposed installing paired wells upgradient of the landfill. However, due to the projected depth (>130 feet) of the water table and the drill rig depth limitations (120-130 feet), the decision was made to defer drilling the upgradient landfill well until the next phase of drilling slated to commence in the next several weeks. At this time, a drill rig capable of depths greater than 200 feet will be utilized.

A fourth well (piezometer PZ-36C) was installed on April 14, 2010 near the synoptic stream gage station PPC-36A. This piezometer was proposed to be installed using a direct push drill rig. However, the direct push rig encountered refusal at depth shallower than the water table. PZ-36C was drilled to a total depth of approximately 25 feet, and completed with 15 feet of screen (20-25 feet) and a sand pack from 17-25 feet.

The three new wells installed upgradient of Seaver Park (EH-200 and EH-201) and downgradient of the former East Helena Landfill (EH-202) were sampled on

April 16, 2010 for rush analyses of dissolved arsenic and selenium. Table 3 lists the April arsenic, selenium and field parameter results.

TABLE 3. UPGRADIENT MONITORING WELL DATA

<u>Well</u>	EH-200	EH-201	EH-202
Water Level Measuring Point			
Elevation (Ft)	3950	3970	3926.93
Depth to Groundwater (Ft)	30.41	99.34	62.85
Groundwater Elevation (Ft)	3919.59	3870.66	3864.08
pH (S.U.)	7.53	7.51	7.51
Specific Conductance			
(microm/cm)	649	557	480
Dissolved Oxygen (mg/L)	8.06	6.89	6.15
Water Temp (C°)	10	12.7	12.4
Arsenic (ppb)	8.0	5.0	16.0
Selenium (ppb)	2.0	2.0	2.0

6. Corrective Action Management Unit (CAMU)

The liner and sandbag damage identified on the CAMU Phase 2 cell temporary liner was repaired by Cleveland Wrecking Company's sub-contractor, Northwest Lining and Geotextile during the second half of April 2010.

From April 20, 2010 through May 3, 2010, approximately 58,500 gallons of water was pumped from the CAMU Phase 2 cell leachate collection sump. The leak detection sump continued to have zero flow, although a small amount of water (3-4 inches) is present in the bottom of this sump.

7. RI/FS Long-Term Monitoring Program

On May 3, 2010, EPA provided comments for reducing the number of groundwater monitoring wells being sampled in May 2010 under the RI/FS Long-Term Monitoring Program. EPA has requested that further refinements and finalization to the RI/FS Long-Term Monitoring Program for the remainder of calendar year 2010 will be described in a revised monitoring plan. On April 2, 2010, the monthly sampling of select residential groundwater wells, as prescribed in the 2009 Groundwater and Surface Water Sampling and Monitoring Plan (the May 2009 GW/SW Plan), was conducted. Copies of the

April 2010 residential well notification letters, along with the corresponding laboratory analytical reports are attached to this monthly progress report.

On April 14, 2010, the residential well located at 2840 Winslow Avenue Seaver Park, which is owned by Rogge Eiler and supplies water to both the 2840 Winslow Avenue and 2830 Winslow Avenue homes, was sampled. The results of this analysis along with the correspondence to Mr. Beckman (the owner of the 2840 Winslow Avenue property) and Mr. Eiler are attached to this monthly progress report.

A summary of the correspondence and data transmitted as part of the East Helena Consent Decree in late April 2010 and early May 2010 is included in <u>Attachment I</u>.

b. Identify any requirements under the Part VII of the Decree that were not completed in a timely manner, and problems or anticipated problem areas affecting compliance with the Decree.

There were no requirements that were not completed in a timely manner nor were there problems or anticipated problem areas that may affect compliance with the Decree.

c. Describe projects completed during the prior month, as well as activities scheduled for the next month.

In accordance with the 2006 Interim Measures Work Plan Addendum, Final Cleaning, Soil Sampling, Backfilling, and Interim Cap Work Plan and the 2006 Interim Measures Work Plan Addendum, Former Acid Plant Sediment Drying Area Slurry Wall, Monitoring, Operation, and Maintenance Work Plan, six areas on site where interim caps have been installed are being inspected on a monthly basis. These monthly inspections were expanded to include areas where above-grade demolition activities were conducted under the 2008 Interim Measures Work Plan and the 2008 and 2009 Cleaning and Demolition Project Work Plan. The most

¹ The four areas include: the former acid sediment drying area; the dross plant, breaking floor, and CSHB areas; sinter plant, crushing mill, sample mill, and acid plant dust; the acid plant gas cleaning and areas; blast furnace flue, Monier flue, and blast baghouse; and the thaw house.

recent inspections occurred on April 5, 2010. Liner and sandbag repairs on identified interim cap areas were completed on April 23, 2010.

In accordance with the July 2000 CAMU Design Analysis Report (Operation and Maintenance Plan), the CAMU Phase 1 cell is being inspected monthly. The most recent inspection occurred on April 1, 2010. Inspections of the CAMU Phase 2 cell temporary cover are conducted on a weekly basis. Liner and sandbag repairs on CAMU Phase 2 cell temporary cover were completed on April 23, 2010. The monthly and weekly inspections confirm that the CAMU Phase 1 and Phase 2 cells are operating as designed.

During the remainder of May 2010, certain residential and public water supply system wells identified in the RI/FS Long-Term Monitoring Program will be sampled. Select residential wells in the Seaver Park subdivision will be sampled. Additional planned activities for May 2010 include (1) planning and coordination for drilling of additional upgradient monitoring wells; (2) continued bi-weekly groundwater and surface water level monitoring for the GW/SW Interaction activities, Supplemental GW Levels program, and the SW Lamping Field groundwater evaluation; (3) finalize Phase II RFI Site Characterization Work Plan and associated addendum documents pursuant to the EPA's Conditional Approval Letter of March 24, 2010 and subsequent 30-day extension; (4) sampling of selenium plume front wells EH-126, EH-129, EH-130, and EH-134; and (5) initiate groundwater level monitoring and water quality data compilation from private wells at Seaver Park and surrounding area. The post-RI/FS water sampling event scheduled for May 2010 has been delayed until June or July to coincide with the completion of additional upgradient monitoring wells.

d. Describe and estimate the percentage of studies completed.

The following projects or studies are 100% complete:

- Pump and treat pilot scale testing for source area reduction of groundwater contamination;
- Jar testing (Phase I) of the East Helena PRB materials testing program;
- Slurry wall construction in the former acid plant sediment drying area;
- Interim capping project for the following areas:
 - o former acid plant sediment drying area
 - dross area

- sinter plant area
- o gas cleaning and contact sections of the acid plant
- o thaw house
- blast furnace baghouse
- o blast furnace flue
- Monier flue
- o sample mill
- crushing mill
- o hopto pad
- storage bins and gallery
- acid dust facility
- o sinter stocking building
- highline railroad
- abandoned and new breaking floor buildings
- groundwater sump
- sinter plant, acid plant, and blast furnace baghouse stacks.
- January 2008 CAMU Phase 2 Cell Design Analyses, CAMU Phase 2 cell construction, and placement of 2008 and 2009 wastes within the CAMU Phase 2 cell;
- Slurry wall construction in the former speiss-dross plant area;
- Historic recordation tasks associated with the 2008 and 2009 Cleaning and Demolition Work Plans;
- 2008 Interim Measures Work Plan Addendum, Blast Furnace Flue and Monier Flue Cleaning and Demolition and Demolition Footprint Exposed Areas Soil Sampling obligations;
- Submittal of the Baseline Ecological Risk Assessment Work Plan (June 2009) and Field Sampling and Analysis Plan (FSAP);
- Submittal of the Human Health Risk Assessment Work Plan (October 2009);
 and
- Submittal of the Phase II RCRA Facility Investigation Site Characterization Work Plan (September 2009).

e. Describe and summarize all findings to date.

The details of findings through early April 2010 have been described and summarized in previous monthly progress reports.

f. Describe actions being taken to address problems.

There were no other actions required to address problems associated with the Decree.

g. Identify changes in key personnel during the period.

There were no significant changes in key personnel during the period.

h. Include copies of the results of sampling and tests conducted and other data generated pursuant to work performed under Part VII of the Decree since the last Progress Report. ASARCO may submit data that has been validated and confirmed by ASARCO to supplement any prior submitted data. Updated validated and confirmed data shall be included with the RFI Report, if not delivered before.

Copies of the April 2010 residential well notification letters, along with the respective laboratory analytical reports are attached to this monthly progress report.

Two validation packages entitled "Validation Summary, Montana Environmental Trust Group, LLC, East Helena Plant RCRA Consent Decree, Monthly Residential Well Monitoring Program Inorganic Analyses, April 2010 Sample Event" and "Validation Summary, Montana Environmental Trust Group, LLC, East Helena Plant RCRA Consent Decree, Private Well Sampling Program, Inorganic Analyses, April 2010 Special Sampling Event for 2840 Winslow Avenue" are attached to this monthly progress report.

i. Describe the status of financial assurance mechanisms, including whether any changes have occurred, or are expected to occur which might affect them, and the status of efforts to bring such mechanisms back into compliance with the requirements of this Decree.

The Custodial Trust received funds for Environmental Actions earmarked for site clean-up in connection with the ASARCO bankruptcy settlement. The Custodial Trust deposited the funds in a segregated East Helena Clean-up account and is investing and managing the funds in accordance with the provisions of the Settlement Agreement.

Please do not hesitate to call me with any questions pertaining to this transmittal.

Sincerely,

Montana Environmental Trust Group, LLC Trustee of the Montana Environmental

Custodial Trust

By: Greenfield Environmental Trust Group, Inc.,

Member

By: Cynthia Brooks, President

Attachments

cc: Denise Kirkpatrick—MDEQ

CERTIFICATION PURSUANT TO U.S. v ASARCO INCORPORATED (CV-98-3-H-CCL, USDC, D. Montana)

I certify under penalty of law that this document, late April early May 2010 Progress Report and all attachments, were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Signature: Cymfluu Su

Montana Environmental Trust Group, LLC,

Trustee of the Montana Environmental Custodial Trust By: Greenfield Environmental Trust Group Inc., Member

By: Cynthia Brooks, President

Date: May 20, 2010

ATTACHMENT 1 SUMMARY OF CORRESPONDENCE LATE APRIL 2010 AND EARLY MAY 2010 PROGRESS REPORT CONSENT DECREE: EAST HELENA SITE

DATE SENT	SENT FROM	SENT TO	SUBJECT	RESPONSE
Attached to This Monthly Progress Report	Cynthia Brooks	Linda Jacobson and Betsy Burns	April 2010 Residential Well Notification Letters/Results	No Formal Response Required
Attached to This Monthly Progress Report	Cynthia Brooks	Linda Jacobson and Betsy Burns	Validation Summary, Montana Environmental Trust Group, LLC, East Helena Plant RCRA Consent Decree, Monthly Residential Well Monitoring Program Inorganic Analyses, April 2010 Sample Event	No Formal Response Required
Attached to This Monthly Progress Report	Cynthia Brooks	Linda Jacobson and Betsy Burns	Validation Summary, Montana Environmental Trust Group, LLC, East Helena Plant RCRA Consent Decree, Monthly Residential Well Monitoring Program Inorganic Analyses, April 2010 Special Sampling Event for 2840 Winslow Avenue	No Formal Response Required

TABLE 1 - GROUNDWATER LEVEL/SURFACE WATER STAGE MONITORING EAST HELENA MONTANA

Site Type Transducer?				Manua	al Water Level	Measurement	Dates
Site	туре	Y/N	Site Description/Location	4/7/2010	4/8/2010	4/15/2010	5/5/2010
Supplement	al Groundwater I	Level Monitori	ng Program				
DH-18	Monitoring Well	Υ	Plant site well installed in deep aquifer. Paired with DH-13	X		X	х
DH-13	Monitoring Well	Y	Plant site well installed in shallow aquifer. Paired with DH-18	X		X	X
DH-3	Monitoring Well	Υ	Upgradient well completed in tertiary sediment groundwater.	X		X	х
EH-126	Monitoring Well	Υ	Lamping Field wells to provide SWL data near	X		X	Х
EH-130	Monitoring Well	Υ	selenium plume front.	X		X	Х
EH-60	Monitoring Well	Y	Town of East Helena wells to determine vertical	X		X	Х
EH-103	Monitoring Well	Υ	gradients in area of highly stratified water quality.	X		Х	Х
Groundwate	er/Surface Water	Interaction Stu	udy		_		
APSD-8	Monitoring Well	Y	Between Lower Lake and PPC close to Lower Lake	X	х	х	х
IP-102	Instream Piezo	Υ	Adjacent to PZ-102 and paired with PPC-102	X	X	Х	X
PZ-102	Piezometer	Y	Between Lower Lake and PPC close to PPC	X	Х	Х	X
PPC-102	SW Stage	Y	In-stream upstream of PPC-103 and below Upper Lake	х	X	x	×
APSD-7	Monitoring Well	Υ	Between Lower Lake and PPC close to Lower Lake		х	X	×
IP-103	Instream Piezo	Y	Adjacent to PZ-103 and paired with PPC-103		X	Х	Х
PZ-103	Piezometer	Υ	Between Lower Lake and PPC close to PPC	X	X	X	Х
PPC-103	SW Stage	Υ	In-stream upstream of dam and below Lower Lake	X	X	X	Х
Upper Lake	SW Stage	N	On Plant Site at Pump Station		X	X	Х
Lower Lake	SW Stage	N	On Plant Site at Pump Dock		X	X	Х
DH-11	Monitoring Well	N	Between S. Montana and PPC, directly east of Slag Pile		X	х	×
PPC-5	SW Stage	N	In-stream west of DH-11 and east of Slag Pile		Х	X	Х
DH-7	Monitoring Well	N	Between Highway 12 and NE corner of Slag Pile		Х	Х	Х
PZ-33A	Piezometer	N	Petucen DH 7 and NE corner of Slea Bile		Х	Х	X
PZ-33B	Piezometer	N	Between DH-7 and NE corner of Slag Pile		X	Х	Х
PPC-33A	SW Stage	N	In-stream at NE corner of Slag Pile		Х	Х	Х

TABLE 1 - GROUNDWATER LEVEL/SURFACE WATER STAGE MONITORING EAST HELENA MONTANA

Cita	Tyma	Transducer		Manua	al Water Level	Measurement	Dates
Site	Туре	Transducer	Site Description/Location	4/7/2010	4/8/2010	4/15/2010	5/5/2010
Groundwate	er/Surface Water	Interaction St	udy (continued)				
DH-53	Monitoring Well	N	Between PPC and North Side of Slag Pile		Х	Х	Х
DH-10A	Monitoring Well	N	Between PPC and North Side of Slag Pile west of DH-53		Х	х	х
PPC-7	SW Stage	N	Downstream of W. RR bridge abutment south of Highway 12 and North of Slag Pile		X	X	Х
EH-54	Monitoring Well	N	North of Gail Street between Cleveland and Morton		X	х	X .
PPC-8	SW Stage	N	North of intersection of Gail St and Morton St.	······································	X	X	
EH-122	Monitoring Well	N	North of Clarkco Storage paired with EH-67	Х	Х	Х	Х
EH-67	Monitoring Well	N	North of Clarkco Storage paired with EH-122	X	Х	X	X
PZ-36A	Piezometer	N	Northeast of Clarkco Storage and east of EH-67 and	X	Х	Х	Х
PZ-36B	Piezometer	N	-EH-122	Х	Х	Х	Х
PZ-36C	Piezometer	N	E11-122		, ,	Х	Х
PPC-36A	SW Stage	N	In-stream directly east of PZ-36A,B,and C	Х	X	X	Х
EH-131	Monitoring Well	N	On north side of PPC directly north of Lamping Field	X	х	x	x
PPC-37A	SW Stage	N	West of EH-131 in main channel.	Х	Х	X	X
EH-127	Monitoring Well	N	South of DDC in Lamping Field directly west of Wiley	X	X	Х	X
PZ-9A	Piezometer	N	South of PPC in Lamping Field directly west of Wiley	X	Х	Х	Х
PZ-9B	Piezometer	N	Drive bridge.	X	Х	Х	Х
PPC-9A	SW Stage	N	On Southwest abutment of Wiley Drive Bridge.	Х	Х	Х	X
Southwest	Lamping Field Gr	oundwater Ev				<u></u>	
EH-128	Monitoring Well	. Y	Southwest corner of Lamping Field in area of elevated arsenic	х		х	х
EH-132	Monitoring Well	Y	Southwest corner of Lamping Field in area of elevated arsenic	Х		х	х

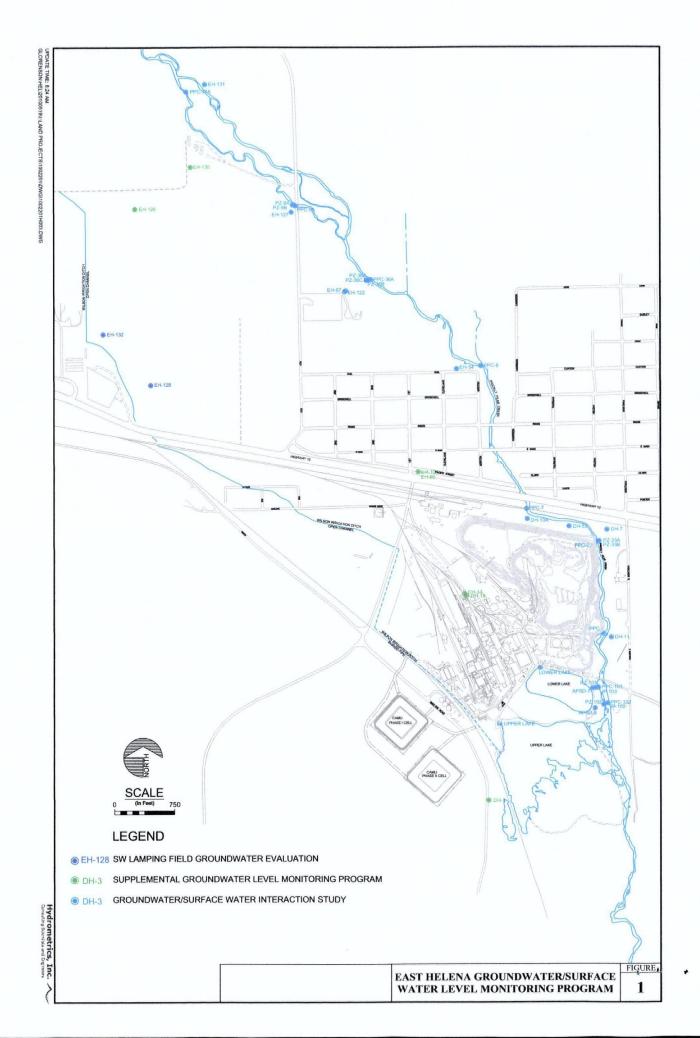


Figure 2. SUPPLEMENTAL GROUNDWATER LEVEL MONITORING PROGRAM

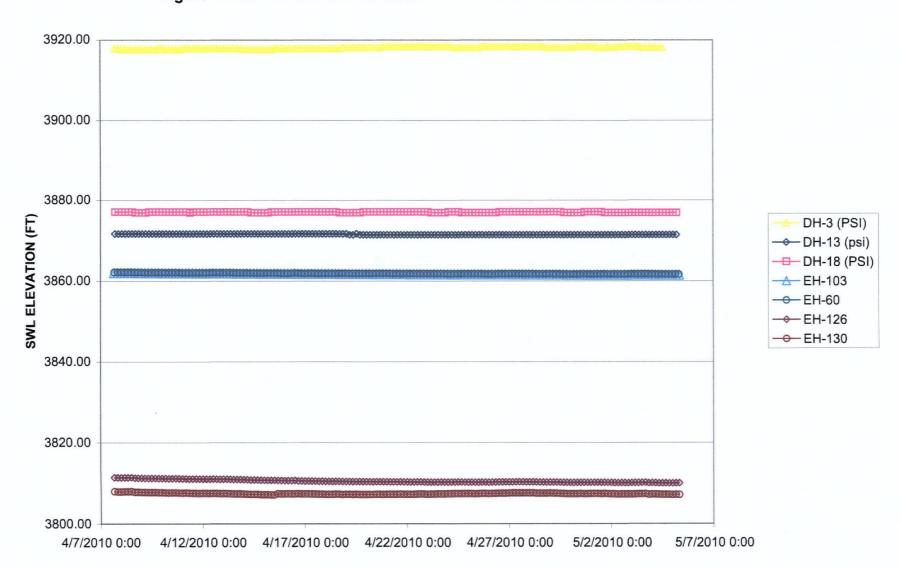


FIGURE 3. GROUNDWATER-SURFACE WATER INTERACTIONS NEAR LOWER LAKE

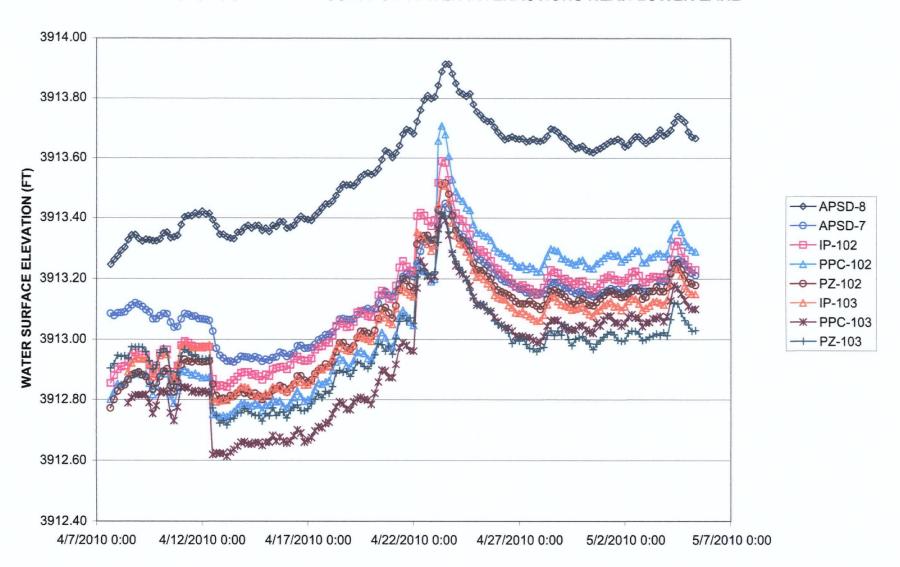
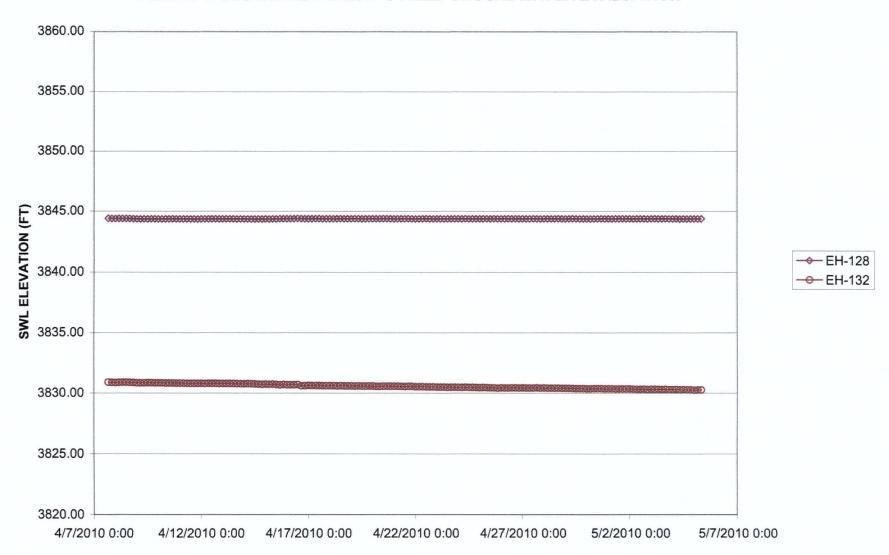


FIGURE 4. SOUTHWEST LAMPING FIELD GROUNDWATER EVALUATION



Hydrometrics, Inc.

Consulting Scientists and Engineers Helena, Montana

Monitor Well Log

Hole Name: EH-200

Date Hole Started: 4/12/2010 Date Hole Finished: 4/12/201

0 - 0.5

Continuous

Client: Montana Environmental Trust Group Project: East Helena Facility

State: Montana County: Lewis & Clark

Property Owner: R&D Properties

Legal Description: NE, NW, SEC35, T10N, R3W

Location Description:

Recorded By: Greg Bryce

Drilling Company: Environmental West

Driller: Randy Wilder

Drilling Method: Air Rotary (Tubex)

Drilling Fluids Used: Air

Purpose of Hole: Monitoring Well

Target Aquifer: First Water Hole Diameter (in): 6"

Total Depth Drilled (ft): 100

WELL COMPLETION DESCRIPTION INTERVAL Y/N 2-inch, flush threaded, Sch 40, PVC Well Installed? +2.5 - 48' Surface Casing Used? Υ 6-inch steel +2.6 to -2.4 0.010-inch slot, Sch 40, PVC Screen/Perforations? 38 - 48 Sand Pack? 10/20 Silica Sand 35 - 51 0.5 - 35, 51 - 100

Annular Seal? Bentonite Chips Portland Cement Surface Seal?

DEVELOPMENT/SAMPLING

Well Developed? Surge/Pump Water Samples Taken? Dissolved As & Se

Boring Samples Taken? Cuttings

Easting: 1230.42

Northing: 12351.4

Static Water Level Below MP: 30.38

Date: 4/13/2010

MP Description: Top of PVC

MP Height Above or Below Ground (ft): 2.5

Surface Casing Height (ft): 2.64

Riser Height (ft): 2.50

Ground Surface Elevation (ft): 3952.5

MP Elevation (ft): 3950

Remarks: MP Elevation was taken with GPS, precision of +/- 1-foot. Detailed survey to be completed.

WELL CONSTRUCTION GRAPHICS **GEOLOGICAL DESCRIPTION** 0.0 - 5.0' Silty Gravel 0.0 Light tan, fine, subangular - subrounded gravel with 30-40% silt (possibly ash), dry. 5.0 - 10.0' Gravelly Sand Brown, poorly sorted, fine - coarse grained sand with 10 - 15% fine gravel, less gravel with depth, dry 10.0 - 17.0' Silty Sand Tan, moderately sorted, fine to medium grained sand with 20 - 25% silt, more silt with depth to approximately 15 feet, dry. Brown, moderately sorted, fine to medium grained (with trace coarse) sand, trace silt, slightly 23.0 - 32.0' Silt White, highly compacted silt (volcanics), dry. 32.0 - 35.0' Silty/Gravelly Sand Tan, poorly sorted, fine - coarse grained sand with 20% fine, subangular - subrounded gravel and 10% silt, dry. 38.0 35.0 - 36.0' Silty Sand Pink, poorly sorted, fine - coarse grained sand with 10 - 15% silt and 5% fine gravel (weathered argilite bedrock), dry 48.0 36.0 - 40.0' Silt White, highly compacted silt with softer medium sand to fine gravel clasts. Wet at 40 feet. 40.0 - 42.0' Sandy Clay White, gravelly sandy clay in texture (volcanics), highly compacted, wet. Made more water from 40 - 41 feet. 42.0 - 45.0' Silt Cuttings are reddish tan, silt with trace fine gravel, dry. 45.0 - 46.5' Silty Gravel Fine - coarse angular - subangular gravel with 20% light tan silt. Wet, possibly from upper zone (40 - 42'). 46.5 - 55.5' Sandy Gravelly Silt Light tan, silt with 5-10% fine, subangular to subrounded gravel and 5% fine to coarse sand, 55.5 - 60.0' Gravelly Silty Sand Reddish brown, fine - coarse grained sand with 15% silt and 10% fine subangular to subrounded gravel, dry 60.0 - 66.0' Gravelly Silty Sand Same as above 66.0 - 69.0' Silty Sand Brown, poorly sorted, fine - coarse grained sand with 30 - 33% silt, trace gravel. 69.0 - 71.0' Silty Gravelly Sand Tan, poorly sorted, fine - coarse grained sand with 15% fine subrounded - subangular gravel and 10% silt. **Bottom of Hole** 100. 71.0 - 74.0' Silty Gravelly Sand Same as above with gravel becoming more angular

Hydrometrics, Ir Consulting Scientists and Engineer	nc.	<u> </u>	Monitor Well Log
Consulting Scientists and Engineer Helena, Montana	rs		Hole Name: EH-200 Date Hole Started: 4/12/2010 Date Hole Finished: 4/12/20
rioina, ivolitaria			Date Hole Stated: 4/12/2010 Date Hole I Mished: 4/12/20
WELL CONSTRUCTION	GRAPHICS	74.0 - 100.0' Bedrock	GICAL DESCRIPTION m silt to gravel, gravel is all angular, possible sand lense
	· •		Sheet 2 of 2



Helena, Montana

Hole Diameter (in): 6"

STANDARD_REV3 K:\GINT\PROJECTS\10022.GPJ HYDHLN2.GDT 5/19/10

Total Depth Drilled (ft): 119

Monitor Well Log

Hole Name: EH-201

Ground Surface Elevation (ft): 3972.5

Sheet 1 of 1

MP Elevation (ft): 3970

Date Hole Started: 4/12/2010 Date Hole Finished: 4/13/201

Client: Montana Environmental Trust Group	WELL COMPLETION	<u>Y/N</u>	DESCRIPTION	INTERVAL
Project: East Helena Facility	Well Installed?	Υ	2-inch, flush threaded, Sch 40, PVC	+2.5 - 119'
County: Lewis & Clark State: Montana	Surface Casing Used?	Υ	6-inch steel	+2.8 to -2.2
Property Owner: R&D Properties	Screen/Perforations?	Υ	0.010-inch slot, Sch 40, PVC	99 - 119
Legal Description: NE, NW, SEC35, T10N, R3W	Sand Pack?	Υ	10/20 Silica Sand	96 - 119
Location Description:	Annular Seal?	Υ	Bentonite Chips	0.5 - 96
	Surface Seal?	Υ	Portland Cement	+0.5 - 0.5
Recorded By: Greg Bryce	DEVELOPMENT/SAMPL	ING		
Drilling Company: Environmental West	Well Developed?	Υ	Surge/Pump	
Driller: Randy Wilder	Water Samples Taken?	Υ	Dissolved As & Se	
Drilling Method: Air Rotary (Tubex)	Boring Samples Taken?	Y	Cuttings	Continuous
Drilling Fluids Used: Air	Northing: 11808.68		Easting: 2133.52	
Purpose of Hole: Monitoring Well	Static Water Level Below	MP:	100.00 Surface Casing H	leight (ft): 2.77
Target Aquifer: First Water	Date: 4/15/2010		Riser Height (ft):	2.50

MP Height Above or Below Ground (ft): 2.5

MP Description: Top of PVC

Remarks: MP Elevation was taken with GPS, precision of +/- 1-foot. Detailed survey to be completed.

WELL CONSTRUCTION GRAPHICS GEOLOGICAL DESCRIPTION 0.0 - 4.0' Sandy Silt 0.0 0.5 Tan, non-plastic silt with 30% fine grained sand, dry. 4.0 - 10.0' Gravelly Sand Brown, poorly sorted, fine to coarse grained sand with 10 - 15% subangular - subrounded fine gravel, trace sitt, dry. 10.0 - 14.0' Gravelly Sand Brown, poorly sorted, fine to coarse grained sand with 20 - 25% subangular to subrounded fine gravel, dry. 14.0 - 20.0' Silty Sand Tan, well sorted, fine grained sand with 20% silt, 16 - 20 feet was lighter tan and had more clasts of white ash, mica, and black inclusions (unidentifiable), dry. 20.0 - 32.0' Silt/Sand White/tan, well sorted fine grained sand with 40 - 50% silt, intermittent red lenses, clast of white ash and unidentifiable black inclusions present throughout, dry. 32.0 - 43.0' Sandy Silt White, predominantly sitty texture with 20 - 25% fine grained sand, drilling firm, contains significant amounts of white ash clasts and gray/black inclusions, dry. 43.0 - 44.0' Silty Sand Greenish white, texture consists of fine grained sand with 30 - 40% silt, highly compacted (drilling firm), contains significant white ash clasts and gray/black inclusions, dry. 44.0 - 46.0' Slity Sand Same as above, transitioning to a tan color. 46.0 - 55.0' Silty Sand Same as above but light tan 55.0 - 57.0' **Gravelly Sand** Reddish brown, poorty sorted, fine to coarse grained sand with 5 - 10% subangular subrounded fine gravel, dry. 57.0 - 60.0' Silty Gravelly Sand White/green, poorly sorted, fine to coarse grained sand with 5% fine subrounded - subangular gravel and 5% silt, dry. 60.0 - 90.5' Silty Sand Light tan, well sorted, fine grained sand with 30 - 40% silt, highly compacted, slight moisture at 88 feet. 90.5 - 94.0' Gravelly Sand 96.0 Greenish tan, poorly sorted, fine - coarse grained sand with 15% subrounded to rounded fine gravel, slightly moist. 94.0 - 99.0' Gravelly Sand Same as above with 5% gravel 99.0 - 102.0' Silty Gravelly Sand Greenish tan, poorly sorted, fine - coarse grained sand with 10% silt and 5 - 15% subangular subrounded fine gravel, more gravel with depth, moist. 102.0 - 120.0' Silty Sand **Bottom of Hole** Greenish tan, fine - coarse grained sand with 20 - 25% silt and trace fine gravel. Appeared moist during drilling but made slight water after one hour.



Helena, Montana

Monitor Well Log

Hole Name: EH-202

Date Hole Started: 4/13/2010 Date Hole Finished: 4/13/201

Client: Montana Environmental Trust Group WELL COMPLETION <u>Y/N</u> DESCRIPTION INTERVAL Well Installed? 2-inch, flush threaded, Sch 40, PVC +2.6 - 90' Project: East Helena Facility State: Montana Surface Casing Used? Υ 6-inch steel +2.8 to -2.2 County: Lewis & Clark Screen/Perforations? 0.010-inch slot, Sch 40, PVC Property Owner: MT Environmental Trust 70 - 90 Legal Description: NW, NW, SEC36, T10N R3W Sand Pack? Υ 10/20 Silica Sand 67 - 90 Υ Location Description: Annular Seal? Bentonite Chips 0.5 - 67Surface Seal? **Portland Cement** +0.5 - 0.5 Recorded By: Greg Lorenson DEVELOPMENT/SAMPLING Drilling Company: Environmental West Well Developed? Pump/Surge Driller: Randy Wilder Water Samples Taken? Υ Dissolved As & Se Boring Samples Taken? Cuttings Continuous Drilling Method: Air Rotary (Tubex)

> Northing: 11582.6 Easting: 5277.78

Static Water Level Below MP: 62.19 Surface Casing Height (ft): 2.81

Date: 4/14/2010 Riser Height (ft): 2.62

MP Description: Top of PVC Ground Surface Elevation (ft): 3924.04

MP Height Above or Below Ground (ft): 2.62 MP Elevation (ft): 3926.95

Remarks:

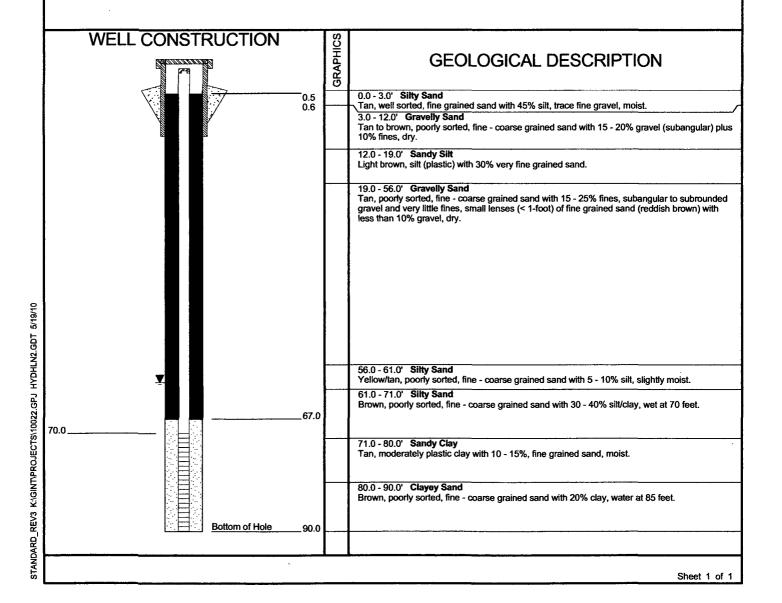
Drilling Fluids Used: Air

Target Aquifer: First Water

Total Depth Drilled (ft): 90

Hole Diameter (in): 6"

Purpose of Hole: Monitoring Well





Helena, Montana

State: Montana

Monitor Well Log

Hole Name: PZ-36C Date Hole Started: 4/14/2010 Date Hole Finished: 4/14/201

Client: Montana Environmental Trust Group

Project: East Helena Facility

County: Lewis & Clark

Property Owner: MT Environmental Trust

Legal Description: SE, NW, SEC25, T10N, R3W

Location Description:

Recorded By: Greg Bryce

Drilling Company: Environmental West

Driller: Randy Wilder

Drilling Method: Air Rotary (Tubex)

Drilling Fluids Used: Air Purpose of Hole: Piezometer Target Aquifer: First Water Hole Diameter (in): 6" Total Depth Drilled (ft): 25

WELL COMPLETION	Y/N	DESCRIPTION	INTERVAL
Well Installed?	Υ	2-inch, flush threaded, Sch 40, PVC	+2.8 - 25'
Surface Casing Used?	Υ	6-inch steel	+2.8 to -2.2
Screen/Perforations?	Υ	0.010-inch slot, Sch 40, PVC	20 - 25
Sand Pack?	Υ	10/20 Silica Sand	17 - 25
Annular Seal?	Υ	Bentonite Chips	0.5 - 17
Surface Seal?	Υ	Portland Cement	+0.5 - 0.5
DEVELOPMENT/SAMP	ING		

Well Developed? Surge/Pump

Water Samples Taken?

Boring Samples Taken? Cuttings Continuous

Easting: 6861.38 Northing: 14853.28

Static Water Level Below MP: 18.39

Date: 4/15/2010

MP Description: Top of PVC

MP Height Above or Below Ground (ft): 2.5

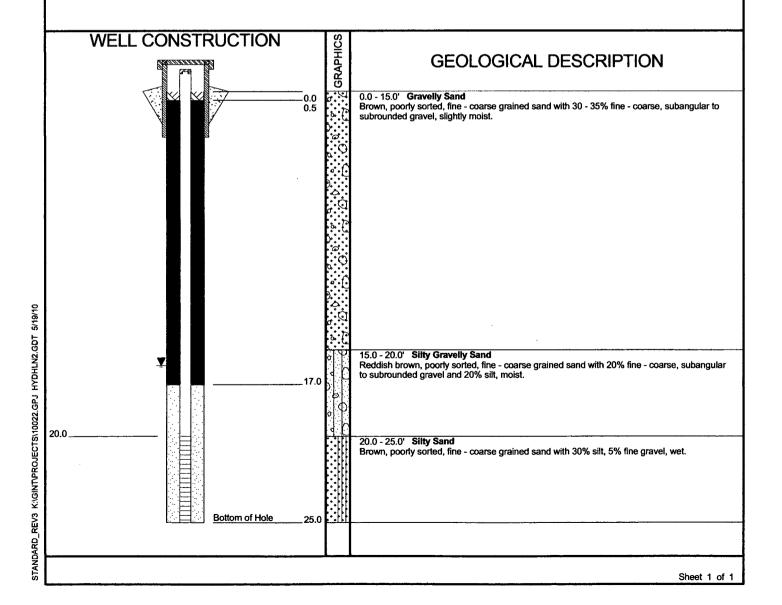
Surface Casing Height (ft): 2.8

Riser Height (ft): 2.5

Ground Surface Elevation (ft):

MP Elevation (ft): 3855.88

Remarks:



April 19 , 2010

Pat Foley 203 Gail Street P. O. Box 2254 East Helena, Montana 59635

Dear Mr. Foley:

Enclosed are the analytical results for the water samples (both original and duplicate) that were collected from the 203 Gail Street ground water well on April 2, 2010. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

Based on the analytical results, the water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel Consultant

Enclosures

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Cc: via electronic mail:

Cindy Brooks – METG, Trustee for the Montana Environmental Custodial Trust Marc Weinreich - METG, Trustee for the Montana Environmental Custodial Trust Bob Anderson - Hydrometrics

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID

EHR-0410-301

Foley Residence (Original Sample) Collection Date: 04/02/10 09:00 DateReceived: 04/02/10

Lab ID:

H10040032-002

Report Date: 04/15/10

Matrix:

Aqueous

203 Gail Street

Analyses	Resul	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
PHYSICAL PROPERTIES											
На	7.7	s.u.		0.1		A4500-H B	04/05/10 17:36 / hm		MAN-TECH_100	405A : 14	R61360
Conductivity	279	umhos/cm		1		A2510 B	04/05/10 17:36 / hm		MAN-TECH_100	405A : 13	R61360
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/07/10 15:51 / hm	04/07/10 14:42 J	-124 (14410200)_10	0407A : 6	8426
Solids, Total Dissolved TDS @ 180 C	196	mg/L		10		A2540 C	04/07/10 15:06 / hm	04/07/10 14:38 J	-124 (14410200)_10	00407B : 5	8424
INORGANICS											
Alkalinity, Total as CaCO3	78	mg/L		1		A2320 B	04/05/10 17:36 / hm		MAN-TECH_100	405A : 12	R61360
Bicarbonate as HCO3	95	mg/L		1		A2320 B	04/05/10 17:36 / hm		MAN-TECH_100	405A : 12	R61360
Chloride	4	mg/L		1		E300.0	04/06/10 22:46 / hm		IC101-H_1004	05A : 124	R61386
Sulfate	53	mg/L		1		E300.0	04/06/10 22:46 / hm		IC101-H_1004	05A : 124	R61386
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Antimony	ND	mg/L		0.003		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Arsenic	ND	mg/L		0.002		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Barium	ND	mg/L		0.1		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Beryllium	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Cadmium	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Calcium	29	mg/L		1		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
Chromium	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Cobalt	ND	mg/L ¥		0.01		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Copper	0.018	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Gold	ND	mg/L		0.01		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
1ron	ND	mg/L		0.02		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
Lead	ND	mg/L		0.005		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Magnesium	7	mg/L		1		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
Manganese	ND	mg/L		0.01		E200.8	04/06/10 19:19 / dck	*	ICPMS204-B_100	406A : 61	R61389
Mercury	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Nickel	ND	mg/L		0.01		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100		R61389
Potassium	2	mg/L		1		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
Selenium	ND	mg/L		0.001		E200.8	04/14/10 02:34 / dck		ICPMS204-B_100	414A : 19	R61581
Silver	ND	mg/L		0.005		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID EHR-0410-301

DateReceived: 04/02/10

Lab ID: Matrix: H10040032-002 Aqueous

Collection Date: 04/02/10 09:00 Report Date: 04/15/10

Analyses	Resu	lt Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchiD
METALS, DISSOLVED											
Sodium	13	mg/L		1		E200.7	04/06/10 13:17 / sld		ICP1-HE_1004	06A : 53	R61387
Tellurium	ND	mg/L		0.1		E200.7	04/07/10 16:47 / sld		ICP1-HE_1004	07B : 16	R61433
Thallium	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_1004	06A : 61	R61389
Vanadium	ND -	mg/L		0.01		E200.8	04/06/10 19:19 / dck		ICPMS204-B_1004	06A : 61	R61389
Zinc	ND	mg/L		0.01		E200.8	04/06/10 19:19 / dck		ICPMS204-B_1004	06A : 61	R61389

Foley Residence 203 Gail Street

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LABORATORY ANALYTICAL REPORT

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID EHR-0410-302

(Duplicate Sample) Collection Date: 04/02/10 09:20

DateReceived: 04/02/10

Lab ID:

H10040032-003

Report Date: 04/15/10

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
PHYSICAL PROPERTIES											
рН	7.8	s.u.		0.1		A4500-H B	04/05/10 18:00 / hm		MAN-TECH_10	0405A:19	R61360
Conductivity	277	umhos/cm		1		A2510 B	04/05/10 18:00 / hm		MAN-TECH_10	0405A:18	R61360
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/07/10 15:20 / hm	04/07/10 14:42	J-124 (14410200)_1	00407A:7	8426
Solids, Total Dissolved TDS @ 180 C	195	mg/L		10		A2540 C	04/07/10 15:07 / hm	04/07/10 14:38	J-124 (14410200)_1	00407B : 7	8424
INORGANICS											
Alkalinity, Total as CaCO3	78	mg/L		1		A2320 B	04/05/10 18:00 / hm		MAN-TECH_10	0405A : 17	R61360
Bicarbonate as HCO3	95	mg/L		1		A2320 B	04/05/10 18:00 / hm		MAN-TECH_10	0405A : 17	R61360
Chloride	4	mg/L		1		E300.0	04/06/10 23:35 / hm		IC101-H_100	405A : 127	R61386
Sulfate	53	mg/L		1		E300.0	04/06/10 23:35 / hm		IC101-H_100	405A : 127	R61386
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Antimony	ND	mg/L		0.003		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Arsenic	ND	mg/L		0.002		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Barium	ND	mg/L		0.1		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Beryllium	ND	mg/L		0,001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A:62	R61389
Cadmium	ND	mg/L		0,001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Calcium	29	mg/L		1		E200.7	04/06/10 13:20 / sld		ICP1-HE_10	0406A : 54	R61387
Chromium	ND	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Cobalt	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A:62	R61389
Copper	0.018	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A:62	R61389
Gold	ND	mg/L		0.01		E200.7	04/06/10 13:20 / sld		ICP1-HE_10	0406A : 54	R61387
Iron	ND	mg/L		0.02		E200.7	04/06/10 13:20 / sld		ICP1-HE_10	0406A : 54	R61387
Lead	ND	mg/L		0,005		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Magnesium	7	mg/L		1		E200.7	04/06/10 13:20 / sld		ICP1-HE_10	0406A : 54	R61387
Manganese	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Mercury	ND	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Nickel	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389
Potassium	2	mg/L		1		E200.7	04/06/10 13:20 / sld		ICP1-HE_10	0406A : 54	R61387
Selenium	ND	mg/L		0.001		E200.8	04/14/10 02:55 / dck		ICPMS204-B_10	0414A : 23	R61581
Silver	ND	mg/L		0,005		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10	0406A : 62	R61389

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID EHR-0410-302

Collection Date: 04/02/10 09:20 DateReceived: 04/02/10

Lab ID:

H10040032-003

Report Date: 04/15/10

Matrix:

Aqueous

Analyses	Resul	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED							****				
Sodium	13	mg/L		1		E200.7	04/06/10 13:20 / sld		ICP1-HE_1004	106A : 54	R61387
Tellurium	ND	mg/L		0.1		E200.7	04/07/10 16:50 / sld		ICP1-HE_1004	107B : 17	R61433
Thallium	ND	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_1004	106A : 62	R61389
Vanadium	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck		ICPMS204-B_1004	106A : 62	R61389
Zinc	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck		ICPMS204-B_1004	106A : 62	R61389

April 19, 2010

John Simac 2540 Wylie Drive P. O. Box 59 East Helena, Montana 59635

Dear Mr. Simac:

Enclosed are the analytical results for the water samples that were collected from the 2540 Wylie Drive ground water well on April 2, 2010. Your irrigation well was not in service during the sampling event. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

Based on the analytical results, the water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely

Jon Nickel Consultant

Enclosures

Cc: via electronic mail:

...

Cindy Brooks – METG, Trustee for the Montana Environmental Custodial Trust Marc Weinreich - METG, Trustee for the Montana Environmental Custodial Trust Bob Anderson - Hydrometrics

Simac Residence

2540 Wylie Drive

LABORATORY ANALYTICAL REPORT

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID EHR-0410-303

H10040032-004

Collection Date: 04/02/10 11:00

DateReceived: 04/02/10

Lab ID:

Aqueous

Report Date: 04/15/10

latrix:	Aque
iauia.	Aque

Analyses	Result	Units	Qualifiers	ŖL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES			- 11a 1 1a			*					
pH	7.8	s.u.		0.1		A4500-H B	04/05/10 18:07 / hm		MAN-TECH_100	405A : 22	R61360
Conductivity	474	umhos/cm		1		A2510 B	04/05/10 18:07 / hm		MAN-TECH_100	405A : 21	R61360
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/07/10 15:20 / hm	04/07/10 14:42	J-124 (14410200)_10	0407A : 9	8426
Solids, Total Dissolved TDS @ 180 C	347	mg/L		10		A2540 C	04/07/10 15:08 / hm	04/07/10 14:38	J-124 (14410200)_10	0407B : 9	8424
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	04/05/10 18:07 / hm		MAN-TECH_100	405A : 20	R61360
Bicarbonate as HCO3	140	mg/L		1		A2320 B	04/05/10 18:07 / hm		MAN-TECH_100	405A : 20	R61360
Chloride	7	mg/L		1		E300.0	04/06/10 23:52 / hm		IC101-H_1004	05A : 128	R61386
Sulfate	120	mg/L		1		E300.0	04/06/10 23:52 / hm		IC101-H_1004	05A : 128	R61386
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/06/10 19:29 / dck		ICPMS204-B 100	406A : 63	R61389
Antimony	ND	mg/L		0.003		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Arsenic	ND	mg/L		0.002		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Barium	ND	mg/L		0.1		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100		R61389
Beryllium	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Cadmium	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Calcium	57	mg/L		1		E200.7	04/06/10 13:23 / sld		ICP1-HE_1004	406A : 55	R61387
Chromium	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Cobalt	ND	mg/L		0.01		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	406A : 63	R61389
Copper	0.002	mg/L ↓		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	406A : 63	R61389
Gold	ND	mg/L		0.01		E200.7	04/06/10 13:23 / sld		ICP1-HE_1004	106A : 55	R61387
Iron	ND	mg/L		0.02		E200.7	04/06/10 13:23 / sld		ICP1-HE_1004	106A : 55	R61387
Lead	ND	mg/L		0.005		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	106A : 63	R61389
Magnesium	12	mg/L		1		E200.7	04/06/10 13:23 / sld		ICP1-HE_1004	106A : 55	R61387
Manganese	ND	mg/L		0.01		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	106A : 63	R61389
Mercury	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	106A : 63	R61389
Nickel	ND	mg/L		0.01		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	106A : 63	R61389
Potassium	5	mg/L		1		E200.7	04/06/10 13:23 / sld		ICP1-HE_1004	106A : 55	R61387
Selenium	0.003	mg/L		0.001		E200.8	04/14/10 03:00 / dck		ICPMS204-B_1004		R61581
Silver	ND	mg/L		0.005		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	106A : 63	R61389

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

ND

0.02

mg/L

mg/L

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID EHR-0410-303

Collection Date: 04/02/10 11:00 DateReceived: 04/02/10

ICPMS204-B_100406A:63

ICPMS204-B 100406A:63

R61389

R61389

Lab ID: Matrix:

Vanadium

Zinc

H10040032-004

Aqueous

Report Date: 04/15/10

04/06/10 19:29 / dck

04/06/10 19:29 / dck

Analyses	Resu	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
METALS, DISSOLVED											
Sodium	17	mg/L		1		E200.7	04/06/10 13:23 / sld		ICP1-HE_100	406A : 55	R61387
Tellurium	ND	mg/L		0.1		E200.7	04/07/10 16:53 / sld		ICP1-HE_100	407B : 18	R61433
Thallium	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A:63	R61389

0.01

0.01

E200.8

E200.8

April 19, 2010

David Jensen
P. O. Box 1021
401 Gail Street
East Helena, Montana 59635

Dear Mr. Jensen:

Enclosed are the analytical results for the water samples that were collected from your 401 Gail Street ground water well on April 2, 2010. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

Based on the analytical results, the water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

Jon Nickel
Consultant

Enclosures

Cc:

via electronic mail:

Cindy Brooks – METG, Trustee for the Montana Environmental Custodial Trust Marc Weinreich - METG, Trustee for the Montana Environmental Custodial Trust Bob Anderson - Hydrometrics

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID EHR-0410-300

H10040032-001

Collection Date: 04/02/10 08:15

DateReceived: 04/02/10

Report Date: 04/15/10

Lab ID: Matrix:

Aqueous

401 Gail Street

Jensen Residence

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES								-			
ρH	7.7	s.u.		0.1		A4500-H B	04/05/10 17:23 / hm		MAN-TECH_	100405A : 8	R61360
Conductivity	750	umhos/cm		1		A2510 B	04/05/10 17:23 / hm		MAN-TECH_	100405A:7	R61360
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/07/10 15:19 / hm	04/07/10 14:42 J	-124 (14410200)_	100407A : 5	8426
Solids, Total Dissolved TDS @ 180 C	564	mg/L		10		A2540 C	04/07/10 15:06 / hm	04/07/10 14:38 J	-124 (14410200)_	100407B : 4	8424
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	04/05/10 17:23 / hm		MAN-TECH_	100405A : 6	R61360
Bicarbonate as HCO3	150	mg/L		1		A2320 B	04/05/10 17:23 / hm		MAN-TECH_	100405A : 6	R61360
Chloride	27	mg/L		1		E300.0	04/06/10 22:30 / hm		IC101-H_10	0405A : 123	R61386
Sulfate	230	mg/L		1		E300.0	04/06/10 22:30 / hm		IC101-H_10	0405A : 123	R61386
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A:60	R61389
Antimony	ND	mg/L		0.003		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A : 60	R61389
Arsenic	0.002	mg/L		0.002		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A : 60	R61389
Barium	ND	mg/L		0.1		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A : 60	R61389
Beryllium	ND	mg/L		0.001		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A : 60	R61389
Cadmium	, ND	mg/L		0.001		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A : 60	R61389
Calcium	95	mg/L		1		E200.7	04/06/10 13:14 / sld		ICP1-HE_1	00406A : 52	R61387
Chromium	ND	mg/L		0.001		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A : 60	R61389
Cobalt	ND	mg/L		0.01		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A : 60	R61389
Copper	0.004	mg/L		0.001		E200.8	04/06/10 19:14 / dck	•	ICPMS204-B_1	00406A : 60	R61389
Gold	ND	mg/L		0.01		E200.7	04/06/10 13:14 / sld		ICP1-HE_1	00406A : 52	R61387
Iran	0.09	mg/L		0.02		E200.7	04/06/10 13:14 / sld		ICP1-HE_1	00406A : 52	R61387
Lead	ND	mg/L		0.005		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A:60	R61389
Magnesium	21	mg/L		1		E200.7	04/06/10 13:14 / sld		ICP1-HE_1	00406A : 52	R61387
Manganese	0.02	mg/L		0.01		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A : 60	R61389
Mercury	ND	mg/L	•	0.001		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A : 60	R61389
Nickel	ND	mg/L		0.01		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A:60	R61389
Potassium	6	mg/L		1		E200.7	04/06/10 13:14 / sld		ICP1-HE_1	00406A : 52	R61387
Selenium	0.022	mg/L		0.001		E200.8	04/08/10 19:07 / dck		ICPMS204-B_1	00408A:84	R61467
Silver	ND	mg/L. ₫		0.005		E200.8	04/06/10 19:14 / dck		ICPMS204-B_1	00406A:60	R61389

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID EHR-0410-300

Collection Date: 04/02/10 08:15 DateReceived: 04/02/10

Lab ID:

H10040032-001

Report Date: 04/15/10

Aqueous

Analyses	Resul	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	24	mg/L		1		E200.7	04/06/10 13:14 / sld	*	ICP1-HE_10040	06A : 52	R61387
Tellurium	ND	mg/L		0.1		E200.7	04/07/10 16:44 / sld		ICP1-HE_10040	7B : 15	R61433
Thallium	ND	mg/L		0.001		E200.8	04/06/10 19:14 / dck		ICPMS204-B_10040	06A:60	R61389
Vanadium	ND	mg/L	3	0.01		E200.8	04/06/10 19:14 / dck		ICPMS204-B_10040	06A:60	R61389
Zinc	0.04	mg/L		0.01		E200.8	04/06/10 19:14 / dck		ICPMS204-B_10040	06A : 60	R61389

May 12, 2010

Cliff Beckman 2840 Winslow Avenue Helena, Montana 59601

Dear Mr. Beckman:

On April 14, 2010, the Montana Environmental Trust Group, LLC. collected water quality samples from the drinking water well that service your residence located at 2840 Winslow Avenue. The samples were collected in response to your request to the United States Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ). I understand that the groundwater well is owned by Rogge Eiler and provides drinking water to both 2830 Winslow Avenue and 2840 Winslow Avenue.

The laboratory analytical reports from the sampling event are attached. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical reports. "ND" indicates that the parameter was not detected at the reporting limit.

The samples collected at the outside spigot near the groundwater well and at your kitchen faucet show that the well's water quality meets all Montana Human Health Standards for the constituents sampled with the exception of total dissolved arsenic, which was slightly higher that the drinking water standard, as shown on the attached water quality criteria table. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL) for arsenic is 0.010 mg/l (10 parts per billion). The arsenic tested at the outside spigot near the groundwater well was 0.016 mg/l (16 parts per billion). The arsenic tested at your kitchen sink faucet was 0.016 mg/l (16 parts per billion) for the original sample and 0.015 mg/l (15 part per billion) for the duplicate sample. All three sets of sample results are consistent with the results obtained from the same groundwater well in July and August 2009.

To help you better understand the potential health effects of arsenic in drinking water, I have enclosed two fact sheets published by the United State Environmental Protection Agency. For more information about arsenic in drinking water, see www.epa.gov/safewater/arsenic. If you any questions, you can reach me at 406) 227-4529.

Enclosure

Cc: Rogge Eiler

Cindy Brooks, METG Linda Jacobson, USEPA Betsy Burns, USEPA Denise Kirkpatrick, MDEQ Bob Anderson, Hydrometrics

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-310 Cliff Beckman (Well Spigot)

Lab ID: Matrix: H10040186-001 2840 Winslow Avenue

Aqueous

Project: Residential Well Sampling - April 2010

Collection Date: 04/14/10 09:35 DateReceived: 04/14/10

Report Date: 04/19/10

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES				_							
рН	8.0	s.u.		0.1		A4500-H B	04/15/10 _. 13:46 / hm		MAN-TECH_1	100415A : 9	R61643
Conductivity	576	umhos/cm		1		A2510 B	04/15/10 13:46 / hm		MAN-TECH_1	100415A : 8	R61643
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/10 15:14 / hm	04/15/10 14:16 -124	(14410200)_10	00415A : 11	8492
Solids, Total Dissolved TDS @ 180 C	405	mg/L		10		A2540 C	04/15/10 14:55 / hm	04/15/10 14:15 J-12	4 (14410200)_1	100415B : 6	8491
INORGANICS							·				
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	04/15/10 13:46 / hm		MAN-TECH_1	100415A:7	R61643
Bicarbonate as HCO3	170	mg/L		1		A2320 B	04/15/10 13:46 / hm		MAN-TECH_1	00415A:7	R61643
Chloride	30	mg/L		1		E300.0	04/15/10 18:39 / hm		IC101-H_1	00415A:6	R61666
Sulfate	96	mg/L		1		E300.0	04/15/10 18:39 / hm		IC101-H_1	00415A:6	R61666
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Antimony	ND	mg/L		0.003	,	E200.8	04/15/10 07:57 / dck	IC	PMS204-B 10	0415A : 31	R61604
Arsenic	0.016	mg/L		0.002		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Barium	ND	mg/L		0.1		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Beryllium	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Cadmium	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Calcium	54	mg/L		1		E200.7	04/16/10 10:19 / sld		ICP1-HE_10	0416A : 16	R61703
Chromium	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck	ÌIC	PMS204-B_10	0415A : 31	R61604
Cobalt	ND	mg/L		0.01		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Copper	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Gold	ND	mg/L		0.01		E200.7	04/16/10 10:19 / sld		ICP1-HE_10	0416A:16	R61703
Iron	0.03	mg/L		0.02		E200.7	04/16/10 10:19 / sld		ICP1-HE_10	0416A:16	R61703
Lead	ND	mg/L		0.005		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Magnesium	17	mg/L		1		E200.7	04/16/10 10:19 / sld		ICP1-HE_10	0416A : 16	R61703
Manganese	ND	mg/L		0.01	•	E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Mercury	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Nickel	ND	mg/L		0.01		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Potassium	12	mg/L		1		E200.7	04/16/10 10:19 / sld		ICP1-HE_10	0416A : 16	R61703
Selenium	0.002	mg/L		0.001		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604
Silver	ND	mg/L		0.005		E200.8	04/15/10 07:57 / dck	IC	PMS204-B_10	0415A : 31	R61604

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-310

Lab ID: Matrix: H10040186-001

Aqueous

Project: Residential Well Sampling - April 2010

Collection Date: 04/14/10 09:35

DateReceived: 04/14/10

Report Date: 04/19/10

Analyses	Resu	lt Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchiD
METALS, DISSOLVED											
Sodium	35	mg/L		1		E200.7	04/16/10 10:19 / sld		ICP1-HE_1004	16A : 16	R61703
Tellurium	DN	mg/L		0.1		E200.7	04/16/10 10:19 / sld		ICP1-HE_1004	16A : 16	R61703
Thallium	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck		ICPMS204-B_1004	15A : 31	R61604
Vanadium	0.01	mg/L		0.01		E200.8	04/15/10 07:57 / dck		ICPMS204-B_1004	15A : 31	R61604
Zinc	0.02	mg/L		0.01		E200.8	04/15/10 07:57 / dck		ICPMS204-B_1004	15A : 31	R61604

Client:

Montana Environmental Custodial Trust

Project: Residential Well Sampling - April 2010

Client Sample ID EHR-0410-311 Cliff Beckman (Kitchen Faucet Original) Collection Date: 04/14/10 09:50

DateReceived: 04/14/10

Lab ID:

H10040186-002 2840 Winslow Avenue

Report Date: 04/19/10

Matrix:

Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES										•	
рН	8.0	s.u.		0.1		A4500-H B	04/15/10 13:52 / hm		MAN-TECH_10	0415A : 12	R61643
Conductivity	594	umhos/cm		1		A2510 B	04/15/10 13:52 / hm		MAN-TECH_10	0415A : 11	R61643
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/10 15:15 / hm	04/15/10 14:16 -1	124 (14410200)_10	D415A : 13	8492
Solids, Total Dissolved TDS @ 180 C	416	mg/L		10		A2540 C	04/15/10 14:56 / hm	04/15/10 14:15 J	-124 (14410200)_1	00415B : 8	8491
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	04/15/10 13:52 / hm	•	MAN-TECH_10	0415A : 10	R61643
Bicarbonate as HCO3	170	mg/L		1		A2320 B	04/15/10 13:52 / hm		MAN-TECH_10	0415A : 10	R61643
Chloride	32	mg/L		1		E300.0	04/15/10 18:56 / hm		IC101-H_1	00415A : 7	R61666
Sulfate	100	mg/L		1		E300.0	04/15/10 18:56 / hm		IC101-H_1	00415A : 7	R61666
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Antimony	ND	mg/L		0.003		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Arsenic	0.016	mg/L		0.002		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Barium	ND	mg/L		0.1		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Beryllium	ND	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Cadmium	ND	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Calcium	55	mg/L		1		E200.7	04/16/10 10:22 / sld		ICP1-HE_10	0416A : 17	R61703
Chromium	ND	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Cobalt	ND	mg/L		0.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Copper	0.006	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Gold	ND	mg/L		0.01		E200.7	04/16/10 10:22 / sld		ICP1-HE_100)416A : 17	R61703
Iron	ND	mg/L		0.02		E200.7	04/16/10 10:22 / sld		ICP1-HE_100	0416A : 17	R61703
Lead	ND	mg/L		0.005		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Magnesium	17	mg/L		1		E200.7	04/16/10 10:22 / sld		ICP1-HE_100	0416A:17	R61703
Manganese	ND	mg/L		0.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Mercury	ND	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Nickel	ND	mg/L		0.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10		R61604
Potassium	12	mg/L		1		E200.7	04/16/10 10:22 / sld		ICP1-HE_100	0416A:17	R61703
Selenium	0.002	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Silver	ND	mg/L		0.005		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-311

Aqueous

Lab ID: Matrix: H10040186-002

Project: Residential Well Sampling - April 2010

Collection Date: 04/14/10 09:50

DateReceived: 04/14/10

Report Date: 04/19/10

Analyses	Resul	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											· · · · · · · · · · · · · · · · · · ·
Sodium	37	mg/L		1		E200.7	04/16/10 10:22 / sld		ICP1-HE_1004	16A : 17	R61703
Tellurium	ND	mg/L		0.1		E200.7	04/16/10 10:22 / sld		ICP1-HE_1004	16A : 17	R61703
Thallium	ND	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_1004	15A : 32	R61604
Vanadium	0.01	mg/L		0.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_1004	15A : 32	R61604
Zinc	0.01	mg/L		0.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_1004	15A : 32	R61604

Client:

Montana Environmental Custodial Trust

Project: Residential Well Sampling - April 2010

DateReceived: 04/14/10

Client Sample ID EHR-0410-312 Cliff Beckman (Kitchen Faucet Duplicate Ollection Date: 04/14/10 10:05

H10040186-003 2840 Winslow Avenue

Report Date: 04/19/10

Lab ID: Matrix:

Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
На	8.0	s.u.		0.1		A4500-H B	04/15/10 14:17 / hm		MAN-TECH_100	0415A : 17	R61643
Conductivity	594	umhos/cm		1		A2510 B	04/15/10 14:17 / hm		MAN-TECH_100	0415A : 16	R61643
Solids, Total Suspended TSS @ 105 C	ND	ma/L		10		A2540 D	04/15/10 15:15 / hm	04/15/10 14:16 -1	124 (14410200) 100)415A : 14	8492
Solids, Total Dissolved TDS @ 180 C	418	mg/L		10		A2540 C	04/15/10 14:56 / hm	04/15/10 14:15 -	124 (14410200)_100)415B : 10	8491
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	04/15/10 14:17 / hm		MAN-TECH_100)415A : 15	R61643
Bicarbonate as HCO3	170	mg/L		1		A2320 B	04/15/10 14:17 / hm		MAN-TECH_100)415A : 15	R61643
Chloride	32	mg/L		1		E300.0	04/15/10 19:45 / hm		IC101-H_100	0415A : 10	R61666
Sulfate	100	mg/L		1		E300.0	04/15/10 19:45 / hm		IC101-H_100)415A : 10	R61666
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61604
Antimony	ND	mg/L		0.003		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61604
Arsenic	0.015	mg/L		0.002		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61604
Barium	ND	mg/L		0.1		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61604
Beryllium	ND	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61604
Cadmium	ND	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61604
Calcium	54	mg/L		1		E200.7	04/16/10 10:25 / sld		ICP1-HE_100	416A : 18	R61703
Chromium	ND	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100	0415A : 33	R61604
Cobalt	ND	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61604
Copper	0.006	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61604
Gold	ND	mg/L		0.01		E200.7	04/16/10 10:25 / sld		ICP1-HE_100	1416A : 18	R61703
ron	ND	mg/L		0.02		E200.7	04/16/10 10:25 / sld		ICP1-HE_100	1416A : 18	R61703
Lead	ND	mg/L		0.005		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61604
Magnesium	17	mg/L		1		E200.7	04/16/10 10:25 / sld		ICP1-HE_100)416A : 18	R61703
Manganese	ND	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100)415A : 33	R61,604
Vercury	ND	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100	1415A : 33	R61604
Nickel	ND	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100	1415A : 33	R61604
Potassium	12	mg/L		1		E200.7	04/16/10 10:25 / sld		ICP1-HE_100	416A : 18	R61703
Selenium	0.002	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100	415A : 33	R61604
Silver	ND	mg/L		0.005		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100	415A : 33	R61604

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-312

Lab ID:

H10040186-003

Matrix:

Aqueous

Project: Residential Well Sampling - April 2010

Collection Date: 04/14/10 10:05

DateReceived: 04/14/10

Report Date: 04/19/10

Analyses	Resul	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
METALS, DISSOLVED											
Sodium	36	mg/L		1		E200.7	04/16/10 10:25 / sld		ICP1-HE_100	416A : 18	R61703
Tellurium	ND	mg/L		0.1		E200.7	04/16/10 10:25 / sld		ICP1-HE_100	416A : 18	R61703
Thallium	ND	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100	415A : 33	R61604
Vanadium	0.01	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100	415A : 33	R61604
Zinc	ND	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_100	415A : 33	R61604

Field Blank

LABORATORY ANALYTICAL REPORT

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-313

H10040186-004

Lab ID: Matrix:

Aqueous

Project: Residential Well Sampling - April 2010

Collection Date: 04/14/10 10:30

DateReceived: 04/14/10

Report Date: 04/19/10

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES									,		
рН	5.4	s.u.		0.1		A4500-H B	04/15/10 14:29 / hm		MAN-TECH_10	0415A : 23	R61643
Conductivity	ND	umhos/cm		1		A2510 B	04/15/10 14:29 / hm		MAN-TECH_10	0415A : 22	R61643
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/10 15:16 / hm	04/15/10 14:16 -	124 (14410200)_10	0415A : 15	8492
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	04/15/10 14:57 / hm	04/15/10 14:15 -	124 (14410200)_10	0415B : 11	8491
NORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		1		A2320 B	04/15/10 14:29 / hm		MAN-TECH_10	0415A : 21	R61643
Bicarbonate as HCO3	ND	mg/L		1		A2320 B	04/15/10 14:29 / hm		MAN-TECH_10	0415A : 21	R61643
Chloride	ND	mg/L		1		E300.0	04/15/10 20:01 / hm		IC101-H_10	0415A : 11	R61666
Sulfate	ND	mg/L		1		E300.0	04/15/10 20:01 / hm		IC101-H_10	0415A : 11	R61666
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Antimony	ND	mg/L		0.003		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Arsenic	ND	mg/L		0.002		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Barium	ND	mg/L		0.1		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Beryllium	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Cadmium	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Calcium	ND	mg/L		1		E200.7	04/16/10 10:34 / sld		ICP1-HE_10	0416A : 21	R61703
Chromium	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Cobalt	ND	mg/L	,	0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Copper	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Gold	ND	mg/L		0.01		E200.7	04/16/10 10:34 / sld		ICP1-HE_10	0416A : 21	R61703
Iron	ND	mg/L		0.02		E200.7	04/16/10 10:34 / sld		ICP1-HE_10	0416A : 21	R61703
Lead	ND	mg/L		0.005		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Magnesium	ND	mg/L		1		E200.7	04/16/10 10:34 / sld		ICP1-HE_10	0416A : 21	R61703
Vanganese	ND	mg/L		0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10		R61604
Mercury	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Nickel	ND	mg/L		0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Potassium	ND	mg/L		1		E200.7	04/16/10 10:34 / sld		ICP1-HE_10	0416A : 21	R61703
Selenium	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604
Silver	ND	mg/L		0.005		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10	0415A : 34	R61604

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Residential Well Sampling - April 2010

Client Sample ID EHR-0410-313

H10040186-004

Collection Date: 04/14/10 10:30 DateReceived: 04/14/10

Report Date: 04/19/10

Lab ID: Matrix:

Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	ND	mg/L		1		E200.7	04/16/10 10:34 / sld		ICP1-HE_1004	16A : 21	R61703
Tellurium	ND	mg/L		0.1		E200.7	04/16/10 10:34 / sld		ICP1-HE_1004	16A : 21	R61703
Thallium	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_1004	15A : 34	R61604
Vanadium	ND	mg/L		0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_1004	15A : 34	R61604
Zinc	ND	mg/L		0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_1004	15A : 34	R61604

Federal and State Water Quality Criteria

·	Montana Human	Health Standard	Montana Freshwater	Aquatic Life Standard	Federal
Parameter	Ground Water	Surface Water	Chronic	Acute	MCL/Action Level
Aluminum (Al)	•-		0.087	0.75	0.05 - 0.20*
Antimony (Sb)	0.006	0.0056			0.006
Arsenic (As)	0.01	0.01	0.15	0.34	0.010
Barium (Ba)	2	2			. 2
Beryllium (Be)	0.004	0.004			0.004
Cadmium (Cd)	0.005	0.005	0.0003+	0.0021+	0.005
Chromium (Cr)	0.1	0.1			0.1
Chromium (III) (Cr (III))	**		0.086+	1.80+	
Chromium (VI) (Cr (VI))	**	t	0.011	0.016	
Copper (Cu)	1.3	1.3	+900.0	0.014+	1.3
Iron (Fe)	0.3#	0.3#	1		0.3*
Lead (Pb)	0.015	0.015	0.0032+	0.082+	0.015
Manganese (Mn)	0.05#	0.05#			0.05
Mercury (Hg)	0.002	0,00005	0.00091	0.0017	().(X)2
Nickel (Ni)	0.1	0.1	0.052+	0.469+	
Selenium (Se)	0.05	0.05	0.005	0.02	0.05
Silver (Ag)	0.1	0.1		0.0041+	0.1*
Thallium (Tl)	0.002	0.00024			0.002
Zinc (Zn)	2	2	0.120+	0.120+	5*

Notes: # = narrative standard (guidance level based on Secondary Federal MCL)

+ = hardness-dependent parameter; value shown is for 100 mg/L hardness as CaCO3

* = Secondary Federal MCL (non-enforceable guideline)

Montana criteria based on Circular DEQ-7, February 2006 Version

Federal criteria obtained from http://www.epa.gov/safewater/contaminants/index.html#listmcl

VALIDATION SUMMARY MONTANA ENVIRONMENTAL TRUST GROUP, LLC EAST HELENA PLANT RCRA CONSENT DECREE PRIVATE WELL SAMPLING PROGRAM

INORGANIC ANALYSES

APRIL 2010 SPECIAL SAMPLING EVENT FOR 2840 WINSLOW AVENUE

ENERGY LABORATORY WORK ORDER NO. H10040186

Prepared for:
Mr. Marc Weinreich
Montana Environmental Trust Group
15001 Winged Bluff Lane
Draper, UT 84020

Prepared by: Linda L. Tangen 6900 Cherry Blossom Lane Albuquerque, NM 87111

April 2010

TABLE OF CONTENTS

LIS	T OF APPENDICES	ii
GLO	OSSARY OF TERMS	i ii
SUN	MMARY	.1
1.	INTRODUCTION	3
2.	DELIVERABLES	3
3.	FIELD PROCEDURES	3
4.	FIELD BLANKS	4
5.	FIELD DUPLICATES	4
6.	LABORATORY PROCEDURES	5
7.	DETECTION LIMITS	5
8.	LABORATORY BLANKS	5
9.	LABORATORY MATRIX SPIKES	6
10.	LABORATORY DUPLICATES	6
11.	LABORATORY CONTROL STANDARDS (LCS)	6
12.	INTERPARAMETER COMPARISON	7
13.	HISTORICAL COMPARISON SUMMARY	. 7
14.	DATA QUALITY OBJECTIVES (DQOS)	8
15.	CONCLUSION	9
REI	FERENCES.	10

LIST OF APPENDICES

APPENDIX 1: DATABASE

APPENDIX 2: FIELD NOTES

APPENDIX 3: CHAIN OF CUSTODY

APPENDIX 4: LABORATORY REPORT

GLOSSARY OF TERMS

(Not all of these acronyms may be used in this document)

CLP Contract Laboratory Program
COC Chain of Custody
CRDLContract Required Detection Limit
DI Deionized Water
DIS Dissolved
DQO Data Quality Objective
ELI-Hel Energy Laboratories, Inc., Helena, Montana
EPAU.S. Environmental Protection Agency
ICV Initial Calibration Verification
IDLInstrument Detection Limit
LCS Laboratory Control Sample
LFBLaboratory Fortified Blank
MS Matrix Spike
METG Montana Environmental Trust Group, LLC
NA Not Applicable
PDLG Project Detection Limit Goal
QCQuality Control
RCRA Resource and Conservation Recovery Act
RPD Relative Percent Difference
SC Specific Conductivity
TDS Total Dissolved Solids

SUMMARY

By special request, water samples were collected from the residence at 2840 Winslow Avenue in East Helena, Montana on April 14, 2010. This water is supplied by a groundwater well located at 2830 Winslow Avenue. Therefore, the site code used for these samples is 2830 Winslow. These samples were collected according to the U.S. Environmental Protection Agency's (EPA) Resource and Conservation Recovery Act (RCRA) Consent Decree Monitoring Program (ASARCO 2009), which is administered by the Montana Environmental Trust Group, LLC (METG). Inorganic constituents for these samples were validated using EPA guidelines for data validation (EPA 2004) and the project work plan (ASARCO 2009). Samples were analyzed by Energy Laboratories, Inc. (ELI-Hel) in Helena, Montana, under work order H1004032.

The validated database is located in Appendix 1. Field notes, chain of custody forms, and laboratory reports are located in Appendices 2, 3, and 4, respectively.

Data quality objectives for this project are as follows:

- Precision is determined by field and laboratory duplicate sample results that are within control limits. The completeness objective for precision is 90% of the duplicate sample results within control limits. This objective was met as 100% (33 out 33 results) of the field duplicate and 100% (34 out of 34 results) of the laboratory duplicate results were in control limits. The overall precision was calculated at 100% (67 out of 67 results).
- Accuracy is determined by laboratory control sample (LCS) and matrix spike (MS) sample results that are within control limits. The completeness objective for accuracy is 90% of the LCS and MS sample results within control limits. This objective was met as 100% (31 out of 31 results) of the LCS results and 100% (57 out of 57 results) of the MS results were within control limits. The overall accuracy was calculated at 100% (88 out of 88 results).
- Completeness is calculated by the number of valid (not rejected) data per number of <u>planned</u> data, expressed as a percentage. The completeness goal for this project was 90%. This goal was met as 100% (140 out of 140 results) of the planned data were analyzed and deemed valid.

Qualified Data Summary

• No data were qualified due to this review.

Conclusion

Sample data collected in April 2010 from 2840 Winslow Avenue are deemed acceptable and can be used for the purposes they were intended. Of the measured results, 100% (140 out of 140 results) can be used without qualification.

Data Validation Report by: Linda L. Tangen

Client Review: Jon Nickel Montana Environmental Trust Group

DATA VALIDATION REPORT

1. Introduction

• This validation applies to analyses for four groundwater and quality control samples collected on April 14, 2010 at 2840 Winslow Avenue in East Helena, Montana. These samples were collected by the Montana Environmental Trust Group (METG), at the request of the homeowner. Samples were analyzed by Energy Laboratories in Helena, Montana (ELI-Hel) under work order H10040032. One field blank and one field duplicate sample was included with these samples.

	•	Validation procedures used are generally consistent with: _X
		X ASARCO East Helena Plant RCRA Consent Decree Monitoring Plan (ASARCO 2009)
		Other
	•	Overall level of validation: CLP Standard – Field and laboratory quality control (QC) samples are reviewed; and samples associated with QC violations are flagged. Visual
2.	DE	LIVERABLES
	•	All laboratory document deliverables were present and accurate as specified in the CLP-Statement of Work (EPA 2001), and/or the project contract. _X_YesNo
	•	All documentation of field procedures was provided as required. Yes No
3.	FIE	CLD PROCEDURES
	•.	Samples were collected from all project-required sites. X Yes - see notes No
		Notes: By special request, water samples were collected from the residence at 2840 Winslow Avenue. This water is supplied by a groundwater well located at 2830 Winslow Avenue. Therefore, the site code used for these samples is 2830 Winslow.

	Field parameters were measured in accordance with the project work plan. _X_YesNo
•	Field instruments were calibrated daily and before measurements were collected. X Yes No
•	Chains of Custodies (COCs) were properly filled out and signed by the field personnel. _X_Yes No
•	Data entry into field books, on COCs, and on sample labels were accurate and complete. _X Yes No
•	Samples were properly preserved in the field. Yes X No – see notes Notes: The samples were received by the laboratory at a temperature of 9.8°C instead of the required 4-6 °C. However, they were delivered directly from the field and did not have time to cool to the proper temperature. Therefore, the samples' quality was not affected.
FIE	LD BLANKS
	aks: Please note that the highest blank value associated with any particular analyte is the k value used for the flagging process.
	Deionized water (DI), trip, rinsate, or any other field blanks have been carried out at the proper frequency (one rinsate blank and one DI blank per event). _X Yes No
	Reported results on the field blanks were less than the Project Detection Limit Goals (PDLGs) or reporting limit. _X_YesNo
FIE	LD DUPLICATES
	Field duplicates have been collected at the proper frequency (one field duplicate per event). _X_YesNo

5.

	Field duplicate relative percent differences (RPDs) were within the required control limits (RPD of 20% or less). If the sample or duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In these cases, the difference between the sample and the duplicate results must be within ± the PDLG. X Yes No
6.	LABORATORY PROCEDURES
	 Laboratory procedures followed X CLP-Statement of Work (EPA 2001) SW-846 (EPA 1986) X Methods for Chemical Analysis of Water and Wastes (EPA 1983)
	• Holding times met Yes No
	Consistency with project requirements Analyses were carried out as required by the project work plan (ASARCO 2009). X Yes No Project specified methods were used. X Yes No
7.	DETECTION LIMITS
	Reporting detection limits met PDLGs. X Yes No
8.	LABORATORY BLANKS
	Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
	Method blanks were prepared and analyzed at the required frequency (one per batch or one per 20 samples, whichever is greater. X Yes No

	No
9.	LABORATORY MATRIX SPIKES
	A Matrix Spike (MS) sample (pre-digestion) was analyzed at the proper frequency (one per batch and/or matrix). X Yes No
	MS recoveries were within the required control limits (75-125%). X Yes No
10.	LABORATORY DUPLICATES
	 Laboratory duplicate samples were analyzed at the proper frequency (one per batch or one per 20 samples, whichever is greater). X Yes No RPDs were within the required control limits (RPD of 20% or less). If the sample or duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In these cases, the difference between the sample and the duplicate results must be within ± the PDLG. X Yes No No
11.	LABORATORY CONTROL STANDARDS (LCS)
	Laboratory Fortified Blanks (LFBs) were used in lieu of LCS' for metal analyses. This is acceptable for the purpose of the project.
	The reference material used for the LCS or LFB was of the correct matrix. X Yes No
	LCS' or LFBs were prepared and analyzed at the proper frequency (one per batch or one per 20 samples, whichever is greater).

All the analytes in the blank were less than the PDLG.

LCS recoveries were within the required control limits (80-120% or certified range).
 X Yes
 No

12. INTERPARAMETER COMPARISON

X Lab pH vs. Field pH.
X Lab Specific Conductivity (SC) vs. Field SC
X Total Dissolved Solids (TDS) vs. Lab SC
X Ion Balance

Notes: RPDs were used to compare associated measurements. If the RPD was greater than 20, the measurements were then compared to other analytes and/or historical data to determine if they were valid or anomalies. Following is a summary of these comparisons.

Lab pH vs. Field pH: All field and lab pH comparisons were in order (pairs had RPDs less than 20). The RPDs for pH pairs ranged from 7.1% to 8.1%, with an average RPD of 7.6%.

Lab SC vs. Field SC: All field and lab SC comparisons were had RPDs greater than 20. However, the SC results were in line with historical data and therefore, were not qualified. The RPDs for SC pairs ranged from 23.3% to 24.2%, with an average RPD of 23.7%.

TDS vs. Lab SC: The ratio of TDS to lab SC should lie between 0.55 and 0.75. In natural waters with high sulfate, the ratio may be much higher. This ratio is intended to be a check on the accuracy of the TDS and lab SC measurements. (It should be noted that these measurements are less accurate in dilute waters.) For this sampling event, the ratios were in line with historical data. All TDS/SC ratios were 0.70.

Ion Balance: All ion balances were in order (RPDs were less than 20 but preferably, less than 10). The ion balances ranged from 3.55% to 5.28%, with an average RPD of 4.64%.

13. HISTORICAL COMPARISON SUMMARY

Due to limited historical data, comparisons to this sampling event's data were not run.

14. DA	ia Quality	OBJECTIVES	(DQOs)
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• The data quality goal was met for precision (90% of the field and laboratory duplicates were within control limits).

 \underline{X} Yes –see the following table

___ No

Precision Objectives

QC Type	Total Results	# of Results Out of Control Limits	# of Results Within Control Limits	% Within Control Limits
Field Duplicates	33	0	33	100.0%
Lab Duplicates	34	0	34	100.0%
Overall	67	0	67	100.0%

• The data quality goal was met for accuracy (90% of the LCS and matrix spike results were within control limits).

X Yes – see the following table

____ No

Accuracy Objectives

QC Type	Total Results	# of Results Out of Control Limits	# of Results Within Control Limits	% Within Control Limits
LCS' and LFBs	31	0	31	100.0%
Matrix Spikes	57	0	57	100.0%
Overall	88	0	88	100.0%

• DQO target for completeness was met (the number of valid results divided by the number of possible results is 90% or above).

X Yes – see the following table

____ No

Completeness

# of Planned	Actual # of	# of Rejected	# of Valid	Completeness
Measurements	Measurements	Measurements	Measurements	
140	140	0	140	100%

- Samples were qualified for QC exceedances and deficiencies.
 - $\underline{\underline{X}}$ Yes \underline{X} No see the following table

Qualification of Samples

	# of Qualified		
# of Measurements	Measurements	# Not Qualified	% Not Qualified
140	0	140	100%

15. CONCLUSION

Sample data collected in April 2010 from 2840 Winslow Avenue are deemed acceptable and can be used for the purposes they were intended.

REFERENCES

- ASARCO 2009. ASARCO East Helena Plant RCRA Consent Decree Monitoring Plan. ASARCO LLC. March.
- EPA 1983. Methods for Chemical Analysis of Water and Wastes. United States Environmental Protection Agency. March.
- EPA 1986. Test Method for Evaluating Solid Waste: Physical/Chemical Methods 3rd Ed. 4 Vols. United States Environmental Protection Agency. December.
- EPA 2001. USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis.

 United States Environmental Protection Agency. Document Number ILM05.2.

 December.
- EPA 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. United States Environmental Protection Agency. Document Number OSWER 9240.1-45. EPA 540-R-04-004. October.

APPENDIX 1

DATABASE

East Helena Special Residential Sample for 2840 Winslow - 4/14/2010

Database: ASARCO, East Helena Plant

Table of Contents by Station Type

Page Station Type

Station Name

•

Domestic Wells

2830Winslo

Field Quality Control

FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

East Helena Special Residential Sample for 2840 Winslow - 4/14/2010

Database: ASARCO, East Helena Plant

Table of Contents By Lab Sample ID

<u>Page</u>	Lab Sample ID	Sample ID	Sample Date	Station Name
1	H10040186-001	EHR-0410-310	4/14/2010	2830Winslo
1	H10040186-002	EHR-0410-311	4/14/2010	2830Winslo
1	H10040186-003	EHR-0410-312	4/14/2010	2830Winslo
1	H10040186-004	EHR-0410-313	4/14/2010	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

East Helena Special Residential Sample for 2840 Winslow - 4/14/2010

Database: ASARCO, East Helena Plant

Table of Contents by Sample ID

Page	Sample ID	Lab Sample ID	Sample Date	Station Name
1	EHR-0410-310	H10040186-001	4/14/2010	2830Winslo
1	EHR-0410-311	H10040186-002	4/14/2010	2830Winslo
1	EHR-0410-312	H10040186-003	4/14/2010	2830Winslo
1	EHR-0410-313	H10040186-004	4/14/2010	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

East Helena Special Residential Sample for 2840 Winslow - 4/14/2010

Database: ASARCO, East Helena Plant

\cdot	Sample Matrix	STATION	2830Winsto	2830Winslo	2830 Winslo	FieldBlank	
LAB LAB LAB H10000186-002 H10000186-002 H10000186-002 H10000186-002 H10000186-002 H10000186-002 H10000186-002 H10000186-003 H10000186-	Water					4/14/2010	
LAB LAB LAB H10004186-002 H10004186-002 H10040186-002 H10040186-003 H10040186-		SAMPLE TIME	09:35	09:50	10:05	10:30	
SAMPLE NUMBER		LAB	ELI	ELI	ELI	ELI	
TyPE		LAB NUMBER	H10040186-001	H10040186-002	H10040186-003	H10040186-004	
Common tons (mg/L): ppm unless noted Private Wells Priv		SAMPLE NUMBER	EHR-0410-310	EHR-0410-311	EHR-0410-312	EHR-0410-313	
DESCRIPTION 2840 Wins/Dutside REMARKS 2840 Wins/Kitchen REMARKS Field Duplicate Blank		TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Field QC	
REMARKS Field Duplicate Blank		GROUP	Private Wells	Private Wells	Private Wells	Private Wells	
Bicarbonate (HCO3)		DESCRIPTION	2840 Wins/Outside	2840 Wins/Kitchen			
Bicarbonate (HCO3)		REMARKS	1		Field Duplicate	Blank	
Calcium (Ca) (DIS)	Common lons (n	ng/L): ppm unless no	oted				
Chloride (CI) 30 32 32 32 <		Bicarbonate (HCO3)	170	170	170	<1	
Magnesium (Mg) (DIS) 17 17 17 17 17 17 17 17 Polasisum (K) (DIS) 12 12 12 12 12 12 12 12 12 12 12 12 12		Calcium (Ca) (DIS)	54	55	54	<1	
Potassium (K) (DIS) 12 12 12 12 12 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15		Chloride (Cl)	30	32	32	<1	
Sodium (Na) (DIS) 35 37 36 <	1	Magnesium (Mg) (DIS)	17	17	17	<1	
Sulfate (SO4) 96 100 100 100 <1				12	12	<1	
Total Alkalinity As CACO3 140 140 140 140 140 140 1 Motals (mg/L): ppm unless noted Aluminum (A) (DIS) < 0.1		Sodium (Na) (DIS)	35	37	36	<1	
Metals (mg/L): ppm unless noted		Sulfate (SO4)	96	100	100	<1	•
Aluminum (Af) (DIS)	Total	Alkalinity As CACO3	140	140	140	<1	
Antimony (Sb) (DIS)	Metals (mg/L): p	pm unless noted					
Antimony (Sb) (DIS)		Aluminum (Al) (DIS)	<0.1	<0.1	<0.1	<0.1	
Arsenic (As) (DIS)							
Barium (Ba) (DIS)				0.016	0.015	<0.002	
Cadmium (Cd) (DIS) <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.002 <0.002 <0.002 <0.002 <0.002 <0.005 <0.0005 <0.0005 <0.0005 <0.0005 <0.0005 <0.0005 <0.0005 <0.0005 <0.0001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001					<0.1	<0.1	
Chromium (Cr) (DIS)		Beryllium (Be) (DIS)	< 0.001	< 0.001	<0.001	<0.001	
Cobalt (Co) (DIS) <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001		Cadmium (Cd) (DIS)	< 0.001	< 0.001	<0.001	<0.001	
Copper (Cu) (DIS)		Chromium (Cr) (DIS)	< 0.001	< 0.001	<0.001	<0.001	
Gold (Au) (DIS) <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.001 <0.01 <0.01 <0.01 <0.01 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005		Cobali (Co) (DIS)	< 0.01	<0.01	<0.01	<0.01	
Iron (Fe) (DIS) 0.03 <0.02 <0.02 <0.02 Lead (Pb) (DIS) <0.005 <0.005 <0.005 <0.005 Manganese (Mn) (DIS) <0.01 <0.01 <0.01 <0.01 <0.01 Mercury (Hg) (DIS) <0.001 <0.001 <0.001 <0.001 <0.001 Nickel (Ni) (DIS) <0.01 <0.01 <0.001 <0.001 <0.001 Selenium (Se) (DIS) 0.002 0.002 0.002 <0.001 Silver (Ag) (DIS) <0.005 <0.005 <0.005 <0.005 <0.005 Tellurium (Te) (DIS) <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 Thallium (Tj) (DIS) <0.001 <0.001 <0.001 <0.001 <0.001 Vanadium (V) (DIS) 0.01 0.01 0.01 <0.01 <0.01 Zinc (Zn) (DIS) 0.02 0.01 <0.01 <0.01 <0.01 Physical/Fld-Lab: ppm unless noted		Copper (Cu) (DIS)	< 0.001	0.006	0.006	<0.001	
Lead (Pb) (DIS)		Gold (Au) (DIS)	<0.01	<0.01	<0.01	<0.01	
Manganese (Mn) (DIS) <0.01		Iron (Fe) (DIS)	0.03	< 0.02	< 0.02	<0.02	
Mercury (Hg) (DIS)		Lead (Pb) (DIS)	< 0.005	< 0.005	< 0.005	< 0.005	
Nickel (Ni) (DIS) <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.001 <0.01 <0.01 <0.01 <0.01 <0.01 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001		Manganese (Mn) (DIS)	< 0.01	<0.01	< 0.01	<0.01	
Selenium (Se) (DIS) 0.002 0.002 0.002 <0.001 Silver (Ag) (DIS) <0.005 <0.005 <0.005 <0.005 Tellurium (Te) (DIS) <0.1 <0.1 <0.1 <0.1 <0.1 Thallium (Ti) (DIS) <0.001 <0.001 <0.001 <0.001 Vanadium (V) (DIS) 0.01 0.01 0.01 <0.01 <0.01 Zinc (Zn) (DIS) 0.02 0.01 <0.01 <0.01 <0.01 Physical/Fid-Lab: ppm unless noted		Mercury (Hg) (DIS)	< 0.001	< 0.001	< 0.001	<0.001	
Silver (Ag) (DIS)		Nickel (Ni) (DIS)	< 0.01	<0.01	< 0.01	<0.01	
Tellurium (Te)(DIS) <0.1 <0.1 <0.1 <0.1 <0.1 Thallium (Tl) (DIS) <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001		Selenium (Se) (DIS)	0.002	0.002	0.002	< 0.001	
Thallium (T) (DIS) <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.0		Silver (Ag) (DIS)	< 0.005	< 0.005	< 0.005	<0.005	
Vanadium (V) (DIS) 0.01 0.01 0.01 <0.01 <0.01 Zinc (Zn) (DIS) 0.02 0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01		Tellurium (Te) (DIS)	<0.1	<0.1	<0.1	<0.1	
Zinc (Zn) (DIS) 0.02 0.01 <0.01 <0.01 <0.01 Physical/Fld-Lab: ppm unless noted Oxygen (O) (DIS) (Fld) 10.4 8.72 pH 8 8 8 8 5.4 pH (Fld) 7.38 7.45 SC (umhos/cm at 25 C) (Fld) 456 466		Thallium (Tl) (DIS)	<0.001	< 0.001	< 0.001	<0.001	
Physical/Fld-Lab: ppm unless noted Oxygen (O) (DIS) (Fld) 10.4 8.72 pH 8 8 8 8 5.4 pH (Fld) 7.38 7.45 SC (umhos/cm at 25 C) (Fld) 456 466		Vanadium (V) (DIS)	0.01	0.01	0.01	<0.01	
Oxygen (O) (DIS) (Fld) 10.4 8.72 pH 8 8 8 5.4 pH (Fld) 7.38 7.45 SC (umhos/cm at 25 C) (Fld) 456 466		Zinc (Zn) (DIS)	0.02	10.0	< 0.01	<0.01	
pH 8 8 8 5.4 pH (Fld) 7.38 7.45 SC (umhos/cm at 25 C) (Fld) 456 466	Physical/Fld-Lat	o: ppm untess noted			· · · · · · · · · · · · · · · · · · ·		
pH (Fld) 7.38 7.45 SC (umhos/cm at 25 C) (Fld) 456 466	c	Oxygen (O) (DIS) (Fid)					
SC (umhos/cm at 25 C) (Fld) 456 466		pН	8	8	8	5.4	
			7.38	7.45			
SC (umhos/cm at 25 C) 576 594 594 <1	SC (un	nhos/cm at 25 C) (Fld)	456	466			
	S	C (umhos/cm at 25 C)	576	594	594	<!--</b-->	

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

East Helena Special Residential Sample for 2840 Winslow - 4/14/2010

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	2830Winslo	2830Winslo	2830 Winslo	FieldBlank	
Water	SAMPLE DATE	4/14/2010	4/14/2010	4/14/2010	4/14/2010	
	SAMPLE TIME	09:35	09:50	10:05	10:30	
	LAB	ELI	ELI	ELI	ELI	
	LAB NUMBER	H10040186-001	H10040186-002	H10040186-003	H10040186-004	
	SAMPLE NUMBER	EHR-0410-310	EHR-0410-311	EHR-0410-312	EHR-0410-313	
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Field QC	
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells	
	DESCRIPTION	2840 Wins/Outside	2840 Wins/Kitchen			
	REMARKS			Field Duplicate	Blank	
Physical/Fld-La	b: ppm unless noted					
	Total Suspended Solids	<10	<10	<10	<10	
TE	S (Measured at 180 C)	405	416	418	<10	
Water	r Temperature (C) (Fld)	12.1	11.9			

TOT: Total; DIS: Dissolved; TRC: Total Recoverable NOTE: Table 1 lists data validation flagging descriptions.

APPENDIX 2

FIELD NOTES

	•
APRIL 14-2010	12 NR 0410-310 .
SPECIAL RESIDENTAL WELL SAMPLE	1,38 SW
2840 WINDOW AVENUE, SEAVER PARK	CEMPULATURY 456 LIMINOS/CIM.
PEQUESTED BY EM, AMPRILLED BY TRUSTIEE	D.O 10.40mill
	15/10C
FIELD STAL'DARDIZATION OF HORIBA	SAMPLED COLLEGED FROM CUTSINE WATER
SIMICORPO METER	SAGOT ANJACENTI TO 1206GE EILER WELL
VALUE READING	L'ILZAID.
1005U 4.005U	
CCHOCOVICY 4480 2MN05/CM 4470 2MN05/CM	EHR-0410-311 (CIRILINAL)
SALINITY 0,2390 0.2390	1.45 SW
	tamoutuity 4ldo unnoslaw
CLIFFION BELLWAN	D.O. 8.72 mg/l
2840 WINDLOW AUDIVE 227-5024	TEMP 11.9°C
BELKMAN WATER IS DRAWN FROM ROLLE	SAMPLE CONFLOW FROM Mr. GETCHMA'S
EILER WELL, EILER WELL SAMPLED IN	KUTCHEN SINK TAP
SUMMER 2009. MR. BEZKMAN CONTA CTOD	12-112-0410-312 (DUPLICATE)
EDA TO RECOURT THAT A SAMPLE BE	
COLLECTED FROM WELL WATER TO DETERMINE	
IF GOLDASH DEDATHS DAID 2 CAT'S URHAYY	E112-0410-313 FIELD BLANK
INFECTIONS WERE RELATED TO IDRINICING	
WELL WATER, MR. BECKMAN PURCHASON	-
BOTTLED WATER FOR 1-112 (A) 3, W'AKA CONTECTOR	
THE INFECTIONS FISH TANK WAS OUTLE TUMBER	
WITHOUS FISH SUVULUING	
Mr. EILER WAS Present DURING THE INITIAL	
DISCUSSICAL BUT 18FT BEFORE SAMPLES WARE	
COLLECTED, MP. BELKMAN HOD COPY OF MP. EILLER'S	
SUMMEN 2009 YESLID, COWN LETTEN, AND EAR FACT	
SHEET FOU PET OWNS. Me, BECKINGS WAS	
sceninal of botoheet.	
	and the control of th

APPENDIX 3 CHAIN OF CUSTODIES

ENERGY	
LABORATORIES	

Chain of Custody and Analytical Request Record

	Name: MONTOKA ENUTRONMENTAL-				Project Name, PWS, Permit, Etc. (NEW NEW NAME) WELL SAMPLING - MORIL 2010									ple Origin : MAT	EPA/State Compliance: Yes No No			
Report Mail Address: Dis 19,7%	1230		 					3X:					Emai			er: (Please P		
DAY NEL	LOVA, MT S	11635	JW N	1)[سلئا		(406)	22	7 45	729						したにし	,	
Invoice Address:			Invoice Cor	ntact	& Ph	one:							Purc	nase Order:	Quote	/Bottle Order		
Special Report/Formats – EL prior to sample submittal for t	the following:	fied	ontainers W S V B O Is/Solids ssay Other				7SIS RI	EQ (VEST		HED	d (TAT)	R	Contact ELI prior RUSH sample su for charges and scheduling – See Instruction Page	bmittal	Shipped by:	<u>deC .</u> -	
GSA	A2LA EDD/EDT(Elect Format:_ LEVEL IV NELAC		Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other	Church Primary	MANNER GA	MITALS					SEE ATTACHED	Normal Turnaround (TAT)	S	Comments:		Receipt Temp On Ice: Yes K Custody Seal Bottles/ Coolers Intact	°C BC Y N	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX		5	3.										Signature Match	Y N	
MASOE-0110-31E	4/14/2010	9:35	6W	X	X						\mathbb{Z}		X			⊳		
2HR-0410-310 METAL		9.35				X					i		1					
WAS ! LE - 0110 - 31-126		9:50		X	X													
12-12-0410-311 moral		9:50				X			'									
EHIR-0410-312 DAW		10:05		X	$\langle X \rangle$	•							}					
"END-0410-312 MUTAL		10:05				X												
1910-0410-313 Day		10:30		X	\times													
"ETIC-0410-313 MATAL		10.30				X										ABORAT		
9																		
10			1															
Custody Relinquished by (print):	Date/Time:	10/163D	Signa	ture:	_		Reco	elved t	y (print):			D	ate/Time:		Signati	ure:		
Record Relinquished by (print):	Date/Time:		Signa	ture:					oy (print):				ate/Time:		Signatu	(
Signed Sample Disposal: F	Return to Client:		Lab Dispos	al:			Rec	Va	Ci (C	tory:	1	6	ste/Time:	10 16:50	Signatu	1. 2000	1	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

APPENDIX 4 LABORATORY REPORT



ANALYTICAL SUMMARY REPORT

April 19, 2010

Jon Nickel

Montana Environmental Custodial Trust

PO Box 1230

E. Helena, MT 59635-1230

Workorder No.: H10040186

Quote ID: H493 - All Water Sampling combined

Project Name:

Residential Well Sampling - April 2010

Energy Laboratories Inc received the following 4 samples for Montana Environmental Custodial Trust on 4/14/2010 for analysis.

Sample ID	Client Sample ID	Collect Date I	Receive Date	Matrix	Test
H10040186-001	EHR-0410-310	04/14/10 9:35	04/14/10	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Anions by Ion Chromatography pH Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H10040186-002	EHR-0410-311	04/14/10 9:50	04/14/10	Aqueous	Same As Above
H10040186-003	EHR-0410-312	04/14/10 10:0	5 04/14/10	Aqueous	Same As Above
H10040186-004	EHR-0410-313	04/14/10 10:3	0 04/14/10	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005

eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002 eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006

eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945

eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012

eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4℃ (±2℃)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: Assistant Laboratory Manager - Hellens

Digitally signed by

Jon Hager

Date: 2010.04.19 13:13:27 -06:00

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-310

Lab ID: Matrix: H10040186-001

Aqueous

Project: Residential Well Sampling - April 2010

Collection Date: 04/14/10 09:35

DateReceived: 04/14/10

Report Date: 04/19/10

Analyses	Resul	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchiD
PHYSICAL PROPERTIES					-						
На	8.0	s.u.		0.1		A4500-H B	04/15/10 13:46 / hm		MAN-TECH_10	00415A : 9	R61643
Conductivity	576	umhos/cm		1		A2510 B	04/15/10 13:46 / hm		MAN-TECH_10	00415A : 8	R61643
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/10 15:14 / hm	04/15/10 14:16-1	24 (14410200)_100		8492
Solids, Total Dissolved TDS @ 180 C	405	mg/L		10		A2540 C	04/15/10 14:55 / hm	04/15/10 14:15 J	124 (14410200)_10	00415B : 6	8491
INORGANICS			•								
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	04/15/10 13:46 / hm		MAN-TECH_10	00415A : 7	R61643
Bicarbonate as HCO3	170	mg/L		1		A2320 B	04/15/10 13:46 / hm		MAN-TECH_10	00415A : 7	R61643
Chloride	30	mg/L		1		E300.0	04/15/10 18:39 / hm		IC101-H_10	00415A : 6	R61666
Sulfate	96	mg/L		1		E300.0	04/15/10 18:39 / hm		IC101-H_10		R61666
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	0415A : 31	R61604
Antimony	ND	mg/L		0.003		E200.8	04/15/10 07:57 / dck		ICPMS204-B 100		R61604
Arsenic	0.016	mg/L		0.002		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100		R61604
Barium	ND	mg/L		0.1		E200.8	04/15/10 07:57 / dck		ICPMS204-B 100		R61604
Beryllium	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	0415A : 31	R61604
Cadmium	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	0415A : 31	R61604
Calcium	54	mg/L		1		E200.7	04/16/10 10:19 / sld		ICP1-HE_100	0416A : 16	R61703
Chromium	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	0415A : 31	R61604
Cobalt	ND	mg/L		0.01		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	0415A : 31	R61604
Copper	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	0415A : 31	R61604
Gold	ND	mg/L		0.01		E200.7	04/16/10 10:19 / sld		ICP1-HE_100	0416A : 16	R61703
Iron	0.03	mg/L		0.02		E200.7	04/16/10 10:19 / sld		ICP1-HE_100	0416A : 16	R61703
Lead	ND	mg/L		0.005		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100)415A : 31	R61604
Magnesium	17	mg/L		1		E200.7	04/16/10 10:19 / sld		ICP1-HE_100	0416A : 16	R61703
Manganese	ND	mg/L		0.01		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100)415A : 31	R61604
Mercury	ND	mg/L		0.001		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100)415A : 31	R61604
Nickel	ND	mg/L		0.01		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	0415A : 31	R61604
Potassium	12	mg/L		1		E200.7	04/16/10 10:19 / sld		ICP1-HE_100	0416A : 16	R61703
Selenium	0.002	mg/L		0.001		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100)415A : 31	R61604
Silver	ND	mg/L		0.005		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	0415A : 31	R61604

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Residential Well Sampling - April 2010

Client Sample ID EHR-0410-310

H10040186-001

Report Date: 04/19/10

Lab ID: H1004018 Matrix: Aqueous

Analyses	Resu	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	35	mg/L		1		E200.7	04/16/10 10:19 / sld		ICP1-HE 100	416A : 16	R61703
Tellurium	ND	mg/L		0.1		E200.7	04/16/10 10:19 / sld		ICP1-HE_100	416A : 16	R61703
Thallium	ND	mg/L	(0.001		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	415A : 31	R61604
Vanadium	0.01	mg/L		0.01		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	415A : 31	R61604
Zinc	0.02	mg/L		0.01		E200.8	04/15/10 07:57 / dck		ICPMS204-B_100	415A : 31	R61604

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-311

Lab ID: Matrix:

Aqueous

H10040186-002

Project: Residential Well Sampling - April 2010

Collection Date: 04/14/10 09:50

DateReceived: 04/14/10

Report Date: 04/19/10

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
рН	8.0	s.u.		0.1		A4500-H B	04/15/10 13:52 / hm		MAN-TECH_10	0415A : 12	R61643
Conductivity	594	umhos/cm		1		A2510 B	04/15/10 13:52 / hm		MAN-TECH_10	0415A : 11	R61643
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/10 15:15 / hm	04/15/10 14:16 -	124 (14410200)_10	0415A : 13	8492
Solids, Total Dissolved TDS @ 180 C	416	mg/L		10		A2540 C	04/15/10 14:56 / hm	04/15/10 14:15	J-124 (14410200)_1	00415B:8	8491
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	04/15/10 13:52 / hm		MAN-TECH_10	0415A : 10	R61643
Bicarbonate as HCO3	170	mg/L		1		A2320 B	04/15/10 13:52 / hm		MAN-TECH 10		R61643
Chloride	32	mg/L		1		E300.0	04/15/10 18:56 / hm		_ ·	00415A:7	R61666
Sulfate	100	mg/L		1		E300.0	04/15/10 18:56 / hm			00415A : 7	R61666
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/15/10 08:02 / dck		ICPMS204-B 10	0415A : 32	R61604
Antimony	ND	mg/L		0.003		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10		R61604
Arsenic	0.016	mg/L		0.002		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10		R61604
Barium	ND	mg/L		0.1		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10		R61604
Beryllium	ND	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B 10		R61604
Cadmium	ND	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Calcium	55	mg/L		1		E200.7	04/16/10 10:22 / sld		ICP1-HE_10		R61703
Chromium	ND	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B 10		R61604
Cobalt	ND	mg/L		0.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Copper	0.006	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B 10		R61604
Gold	ND	mg/L		0.01		E200.7	04/16/10 10:22 / sld		ICP1-HE 10	0416A : 17	R61703
Iron	ND	mg/L		0.02		E200.7	04/16/10 10:22 / sld		ICP1-HE_10	0416A : 17	R61703
Lead	ND	mg/L		0.005		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10		R61604
Magnesium	17	mg/L		1		E200.7	04/16/10 10:22 / sld		ICP1-HE_10	0416A : 17	R61703
Manganese	ND	mg/L		0.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10		R61604
Mercury	ND	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10		R61604
Nickel	ND	mg/L		0.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Potassium	12	mg/L		1		E200.7	04/16/10 10:22 / sld		ICP1-HE_10	0416A : 17	R61703
Selenium	0.002	mg/L		0.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604
Silver	ND	mg/L		0.005		E200.8	04/15/10 08:02 / dck		ICPMS204-B_10	0415A : 32	R61604

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Lab ID:

Matrix:

Montana Environmental Custodial Trust

Project: Residential Well Sampling - April 2010

Client Sample ID EHR-0410-311

H10040186-002

Aqueous

Collection Date: 04/14/10 09:50

DateReceived: 04/14/10

Report Date: 04/19/10

Analyses	Resul	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
METALS, DISSOLVED		1,1									
Sodium	37	mg/L		1		E200.7	04/16/10 10:22 / sld		ICP1-HE_1004	16A : 17	R61703
Tellurium	ND	mg/L		0.1		E200.7	04/16/10 10:22 / sld	-	ICP1-HE_1004	116A : 17	R61703
Thallium	ND	mg/L	0	.001		E200.8	04/15/10 08:02 / dck		ICPMS204-B_1004	115A : 32	R61604
Vanadium .	0.01	mg/L	C	.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_1004	115A : 32	R61604
Zinc	0.01	mg/L	C	0.01		E200.8	04/15/10 08:02 / dck		ICPMS204-B_1004	15A : 32	R61604

Client:

Montana Environmental Custodial Trust

Project: Residential Well Sampling - April 2010

Client Sample ID EHR-0410-312

Collection Date: 04/14/10 10:05 DateReceived: 04/14/10

Lab ID:

H10040186-003

Aqueous

Report Date: 04/19/10

Matrix:

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES			•					• •			
рH	8.0	s.u.		0.1		A4500-H B	04/15/10 14:17 / hm		MAN-TECH 10	0415A : 17	R61643
Conductivity	594	umhos/cm		1		A2510 B	04/15/10 14:17 / hm		MAN-TECH 10	0415A : 16	R61643
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/10 15:15 / hm	04/15/10 14:16-	124 (14410200)_10	0415A : 14	8492
Solids, Total Dissolved TDS @ 180 C	418	mg/L		10		A2540 C	04/15/10 14:56 / hm		124 (14410200)_10		8491
INORGANICS											
Alkalinity, Total as CaCO3	140	mg/L		1		A2320 B	04/15/10 14:17 / hm		MAN-TECH 10	0415A : 15	R61643
Bicarbonate as HCO3	170	mg/L		1		A2320 B	04/15/10 14:17 / hm		MAN-TECH 10		R61643
Chloride	32	mg/L		1		E300.0	04/15/10 19:45 / hm		IC101-H 10	0415A : 10	R61666
Sulfate	100	mg/L		1		E300.0	04/15/10 19:45 / hm		IC101-H_10	0415A : 10	R61666
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/15/10 08:07 / dck		ICPMS204-B 10	0415A : 33	R61604
Antimony	ND	mg/L		0.003		E200.8	04/15/10 08:07 / dck		ICPMS204-B 10		R61604
Arsenic	0.015	mg/L		0.002		E200.8	04/15/10 08:07 / dck		ICPMS204-B 10		R61604
Barium	ND	mg/L		0.1		E200.8	04/15/10 08:07 / dck		ICPMS204-B 10		R61604
Beryllium	ND	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10	0415A : 33	R61604
Cadmium	ND	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10		R61604
Calcium	54	mg/L		1		E200.7	04/16/10 10:25 / sld		ICP1-HE_10		R61703
Chromium	ND	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10	0415A : 33	R61604
Cobalt	ND	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10	0415A : 33	R61604
Copper	0.006	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10	0415A : 33	R61604
Gold	ND	mg/L		0.01		E200.7	04/16/10 10:25 / sld		ICP1-HE_10	0416A : 18	R61703
ron	ND	mg/L		0.02		E200.7	04/16/10 10:25 / sld		ICP1-HE_10	0416A : 18	R61703
Lead	ND	mg/L		0.005		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10	0415A : 33	R61604
Magnesium	17	mg/L		1		E200.7	04/16/10 10:25 / sld		ICP1-HE_10	0416A : 18	R61703
Vlanganese	ND	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10	0415A : 33	R61604
Mercury	ND	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10	0415A : 33	R61604
Nickel	ND	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10	0415A : 33	R61604
otassium	12	mg/L		1	•	E200.7	04/16/10 10:25 / sld		ICP1-HE_10	0416A : 18	R61703
Selenium	0.002	mg/L		0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_10		R61604
Silver	ND	mg/L		0.005		E200.8	04/15/10 08:07 / dck		ICPMS204-B 10		R61604

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Residential Well Sampling - April 2010

Client Sample ID EHR-0410-312

Aqueous

Collection Date: 04/14/10 10:05 DateReceived: 04/14/10

Lab ID: Matrix:

H10040186-003

Report Date: 04/19/10

Analyses	Resul	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
METALS, DISSOLVED			• • • • • • • • • • • • • • • • • • • •								
Sodium	36	mg/L		1		E200.7	04/16/10 10:25 / sld		ICP1-HE_1004	116A : 18	R61703
Tellurium	ND	mg/L		0.1		E200.7	04/16/10 10:25 / sld		ICP1-HE_1004	116A : 18	R61703
Thallium	ND	mg/L	(0.001		E200.8	04/15/10 08:07 / dck		ICPMS204-B_1004	115A : 33	R61604
Vanadium	0.01	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_1004	115A : 33	R61604
Zinc	ND	mg/L		0.01		E200.8	04/15/10 08:07 / dck		ICPMS204-B_1004	115A : 33	R61604

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-313

H10040186-004

Lab ID: Matrix:

Aqueous

Project: Residential Well Sampling - April 2010

Collection Date: 04/14/10 10:30

DateReceived: 04/14/10

Report Date: 04/19/10

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.4	s.u.		0.1		A4500-H B	04/15/10 14:29 / hm		MAN-TECH_100)415A : 23	R61643
Conductivity	ND	umhos/cm		1		A2510 B	04/15/10 14:29 / hm		MAN-TECH_100)415A : 22	R61643
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/10 15:16 / hm	04/15/10 14:16	124 (14410200)_100)415A : 15	8492
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	04/15/10 14:57 / hm	04/15/10 14:15 -	124 (14410200)_100)415B : 11	8491
NORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		1		A2320 B	04/15/10 14:29 / hm		MAN-TECH_100	1415A : 21	R61643
Bicarbonate as HCO3	ND	mg/L		1		A2320 B	04/15/10 14:29 / hm		MAN-TECH_100)415A : 21	R61643
Chloride	ND	mg/L		1		E300.0	04/15/10 20:01 / hm		IC101-H_100)415A : 11	R61666
Sulfate	ND	mg/L		1		E300.0	04/15/10 20:01 / hm		IC101-H_100	0415A : 11	R61666
METALS, DISSOLVED											
Aluminum	NĐ	mg/L		0.1		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	1415A : 34	R61604
Antimony	ND	mg/L		0.003		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	1415A : 34	R61604
Arsenic	ND	mg/L		0.002		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	415A : 34	R61604
Barium	ND	mg/L		0.1		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	1415A : 34	R61604
Beryllium `	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	1415A : 34	R61604
Cadmium	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100)415A : 34	R61604
Calcium	ND	mg/L		1		E200.7	04/16/10 10:34 / sld		ICP1-HE_100	416A : 21	R61703
Chromium	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	1415A : 34	R61604
Cobalt	ND	mg/L		0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	415A : 34	R61604
Copper	NĐ	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	415A : 34	R61604
Gold	ND	mg/L		0.01		E200.7	04/16/10 10:34 / sld		ICP1-HE_100	416A : 21	R61703
Iron	ND	mg/L		0.02		E200.7	04/16/10 10:34 / sld		ICP1-HE_100	416A : 21	R61703
Lead	ND	mg/L		0.005		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	415A : 34	R61604
Magnesium	ND	mg/L		1		E200.7	04/16/10 10:34 / sld		ICP1-HE_100	416A : 21	R61703
Manganese	ND	mg/L		0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	415A : 34	R61604
Mercury	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	415A : 34	R61604
Nickel	ND	mg/L		0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	415A : 34	R61604
otassium	ND	mg/L		1		E200.7	04/16/10 10:34 / sld		ICP1-HE_100		R61703
Selenium	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	415A : 34	R61604
Silver	ND	mg/L		0.005		E200.8	04/15/10 08:12 / dck		ICPMS204-B_100	415A : 34	R61604

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Residential Well Sampling - April 2010

Client Sample ID EHR-0410-313

Collection Date: 04/14/10 10:30 DateReceived: 04/14/10

Lab ID:

H10040186-004

Report Date: 04/19/10

Matrix:

Aqueous

Analyses	Resul	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Sodium	ND	mg/L		1		E200.7	04/16/10 10:34 / sld	•	ICP1-HE_10041	6A : 21	R61703
Tellurium	ND	mg/L		0.1		E200.7	04/16/10 10:34 / sld		ICP1-HE_10041	6A : 21	R61703
Thallium	ND	mg/L		0.001		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10041	5A : 34	R61604
Vanadium	ND	mg/L		0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10041	5A : 34	R61604
Zinc	ND	mg/L		0.01		E200.8	04/15/10 08:12 / dck		ICPMS204-B_10041	5A : 34	R61604



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040186

BatchID: 8491 Ducinat Residential Well Sampling - April 2010

Project: Residential W	ell Sampling - A	pril 2010			V 1						
Run ID :Run Order: ACCU-124 (1441	0200)_100415B: 1	SampType:	Method Blank	<		Sample	ID: MB-849		Method	d: A2540 C	
Analysis Date: 04/15/10 14:52	Units:	mg/L			Prep Info:	: Prep Da	ate: 4/15/201	0	Prep Method	d: A2540 C	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC_	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2	1									
Associated samples: H10040186-001	A; H10040186-002A	\; H10040186-	-003A; H1004	0186-004A							
Run ID :Run Order: ACCU-124 (1441	0200)_100415B: 2	SampType:	Laboratory Co	ontrol Sample		Sample	ID: LCS-8 49	11	Method	i: A2540 C	
Analysis Date: 04/15/10 14:53	Units:	mg/L			Prep Info:	Prep Da	ate: 4/15/201	0	Prep Method	: A2540 C	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1940	10	2000	2	97	90	110				
Associated samples: H10040186-001	A; H10040186-002A	\; H10040186-	-003A; H1004	0186-004A							
Run ID :Run Order: ACCU-124 (1441	0200)_100415B: 7	SampType:	Sample Dupli	cate		Sample	ID: H10040 1	86-001ADUP	Method	i: A2540 C	ARREST AND A STATE OF THE STATE
Analysis Date: 04/15/10 14:55	Units:	mg/L			Prep Info:	Prep Da	ate: 4/15/201	0	Prep Method	i: A2540 C	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	405	10						405	0	5	
Associated samples: H10040186-001	A; H10040186-002A	ı; H10040186-	003A; H1004	0186-004A							
Run ID :Run Order: ACCU-124 (1441	0200)_100415B: 9	SampType:	Sample Matri	x Spike	ne ancientamento en el constante de la constan	Sample	ID: H10040 1	86-002AMS	Method	i: A2540 C	AMERICA SER I ASS A MINISTER OF
Analysis Date: 04/15/10 14:56	Units:	mg/L			Prep Info:	Prep Da	ate: 4/15/201	0	Prep Method	d: A2540 C	
Analytes 1	Result	PQL		SPK Ref Val	%REC			RPD Ref Val		RPDLimit	Qual

416

80

120

Associated samples: H10040186-001A; H10040186-002A; H10040186-003A; H10040186-004A

2340

Solids, Total Dissolved TDS @ 180 C

Date: 19-Apr-10

2000

10

N - Analyte concentration was not sufficiently high to calculate RPD



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040186

Solids, Total Suspended TSS @ 105 C

Project: Residential Well Sampling - April 2010

BatchID: 8492

Run ID :Run Order: ACCU-124 (14410200)	100415A: 1	SampType:	Method Blank	(Sample	ID: MB-849	2	Method:	A2540 D	
Analysis Date: 04/15/10 15:11	Units:	mg/L			Prep Info:	Prep Da	ite: 4/15/201	0	Prep Method:	A2540 D	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD F	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	1						<u>-</u>			
Associated samples: H10040186-001A; H1	0040186-002	A; H10040186	-003A; H1004	0186-004A							
Run ID :Run Order: ACCU-124 (14410200)	_100415A; 2	SampType:	Laboratory C	ontrol Sample		Sample	ID: LCS-849	2	Method:	A2540 D	-
Analysis Date: 04/15/10 15:12	Units:	mg/L			Prep Info:	Prep Da	ite: 4/15/201	0	Prep Method:	A2540 D	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD F	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	1830	10	2000		92	70	130				
Associated samples: H10040186-001A; H1	0040186-002	A; H10040186	-003A; H1004	0186-004A							
Run ID :Run Order: ACCU-124 (14410200)	_100415A: 12	SampType:	Sample Dupli	cate		Sample	ID: H10040 1	86-001 ADUP	Method:	A2540 D	
Analysis Date: 04/15/10 15:15	Units:	mg/L			Prep Info:	Prep Da	ate: 4/15/201	0	Prep Method:	A2540 D	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD F	RPDLimit	Qual

Associated samples: H10040186-001A; H10040186-002A; H10040186-003A; H10040186-004A

ND

10

Date: 19-Apr-10

5



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040186

Project: Residential Well Sampling - April 2010

BatchID: R61604

Run ID :Run Order: ICPMS204-B_100415A: 8		SampType:	Initial Calibra	tion Verification	Standard	Sample I	D: QCS STI)	Method	: E200.8	
Analysis Date: 04/15/10 05:58	Units:	mg/L			Prep Info:	Prep Da	te:		Prep Method	i:	
Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.256	0.10	0.25		103	90	110				•
Antimony	0.0498	0.050	0.05		100	90	110				
Arsenic	0.0508	0.0050	0.05		102	90	110				
Barium	0.0510	0.10	0.05		102	90	110				
Beryllium	0.0261	0.0010	0.025		104	90	110				
Cadmium	0.0264	0.0010	0.025		106	90	110				
Chromium	0.0523	0.010	0.05		105	90	110				
Cobalt	0.0526	0.010	0.05		105	90	110				
Copper	0.0526	0.010	0.05		105	90	110				
Lead	0.0511	0.010	0.05		102	90	110				
Manganese	0.257	0.010	0.25		103	90	110				
Mercury	0.00209	0.0010	0.002		105	90	110				
Nickel	0.0517	0.010	0.05		103	90	110				
Selenium	0.0509	0.0050	0.05		102	90	110				
Silver	0.0258	0.0050	0.025		103	90	110				
Thallium	0.0515	0.10	0.05		103	90	110				
Vanadium	0.0512	0.10	0.05	•	102	90	110				
Zinc	0.0523	0.010	0.05		105	90	110				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICPMS204-B_100)415A: 9	SampType:	Interference (Check Sample A		Sample I	ID: ICSA		Method	: E200.8	
Analysis Date: 04/15/10 06:03	Units: r	ng/L	*		Prep Info:	Prep Da	te:		Prep Method	i :	
Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.5	0.10	40		106	70	130				
Antimony	0.000453	0.050									
Arsenic ·	0.000183	0.0050									
Barium	3.80E-05	0.10									
Beryllium	2.00E-06	0.0010									
Cadmium	0.000596	0.0010									
Chromium	0.000861	0.010									
Cobalt	0.00178	0.010									
Copper	0.00238	0.010									
Lead	8.30E-05	0.010									

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

Date: 19-Apr-10

J - Analyte detected below quantitation limits

R - RPD outside accepted equery lights

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: Project:

H10040186

Residential Well Sampling - April 2010

BatchID: R61604

Run ID :Run Order: ICPMS204-B_100)415A: 9	SampType:	Interference C	Check Sample A		Sample I	D: ICSA		Method	: E200.8	
Analysis Date: 04/15/10 06:03	Units: ı	mg/L			Prep Info	: Prep Da	te:		Prep Method	l:	
Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.00242	0.010									
Mercury	4.30E-05	0.0010									
Nickel	0.00172	0.010									
Selenium	7.80E-05	0.0050									
Silver	0.000300	0.0050									
Thallium	2.30E-05	0.10									
Vanadium	0.000109	0.10									
Zinc	0.00187	0.010									

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICPMS204-B_1	00415A: 10	SampType:	Interference C	heck Sample AB		Sample	ID: ICSAB		Method	: E200.8	
Analysis Date: 04/15/10 06:08	Units:	mg/L			Prep Info:	Prep Da	ite:		Prep Method	d:	
Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	43.7	0.10	40		109	70	130				
Antimony	0.000253	0.050				0	0				
Arsenic	0.0113	0.0050	0.01		113	70	130				
Barium	3.70E-05	0.10				0	0				
Beryllium	3.00E-06	0.0010				0	0				
Cadmium	0.0113	0.0010	0.01		113	70	130				
Chromium	0.0233	0.010	0.02		116	70	130				
Cobalt -	0.0242	0.010	0.02		121	70	130				
Copper .	0.0239	0.010	0.02		119	70	130				
Lead	7.00E-05	0.010				0	0				
Manganese	0.0248	0.010	0.02		124	70	130				
Mercury	2.80E-05	0.0010				0	0				
Nickel	0.0241	0.010	0.02		120	70	130				
Selenium	0.0106	0.0050	0.01		105	70	130				
Silver	0.0189	0.0050	0.02		94	70	130				
Thallium	1.10E-05	0.10				0	0				
Vanadium	0.0224	0.10	0.02		112	70	130				
Zinc	0.0128	0.010	0.01		128	70	130				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

Date: 19-Apr-10

J - Analyte detected below quantitation limits

R - RPD outside accepted eqoyery lingits

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040186

Project: Residential Well Sampling - April 2010

BatchID: R61604

Run ID :Run Order: ICPMS204-B_100415A	: 16	SampType:	Method Blank			Sample	ID: ICB		Method	: E200. 8	
Analysis Date: 04/15/10 06:39	Units: r	mg/L			Prep Info	: Prep Da	te:		Prep Method	l:	
Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0002									
Antimony	ND	1E-05									
Arsenic	ND	5E-05									
Barium	ND	2E-05									
Beryllium	ND	1E-05									
Cadmium	ND	1E-05									
Chromium	ND	5E-05									
Cobalt	ND	1E-05									
Copper	ND	4E-05									
Lead	ND	1E-05									
Manganese	ND	2E-05									
Mercury	6E-06	5E-06									
Nickel	ND	5E-05									
Selenium	ND	0.001									
Silver	0.0002	2E-05									
Thallium	ND	2E-05									
Vanadium	ND	3E-05									
Zinc	0.0005	0.0004									

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICPMS204-B_1004	415A: 17	SampType:	Laboratory Fo	ortified Blank		Sample I	D: LFB		Method	: E200.8	
Analysis Date: 04/15/10 06:45	Units: r	ng/L			Prep Info:	Prep Da	te:		Prep Method	i:	
Analytes <u>18</u>	Result	PQL	SPK value	SPK Ref Val	%REC_	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0491	0.10	0.05		98	85	115				
Antimony	0.0496	0.050	0.05		99	85	115				
Arsenic	0.0485	0.0050	0.05		97	85	115				
Barium	0.0495	0.10	0.05		99	85	115				
Beryllium	0.0492	0.0010	0.05		98	85	115				
Cadmium	0.0489	0.0010	0.05		98	85	115				
Chromium	0.0496	0.010	0.05		99	85	115				
Cobalt	0.0488	0.010	0.05		98	85	115				
Copper	0.0484	0.010	0.05		97	85	115				
Lead	0.0494	0.010	0.05		99	85	115				

Qualiflers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted equery lingits

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order:

Project:

H10040186

Residential Well Sampling - April 2010

BatchID: R61604

Run ID :Run Order: ICPMS204-B_100	415A: 17	SampType:	Laboratory Fo	ortified Blank		Sample I	ID: LFB		Method	: E200.8	
Analysis Date: 04/15/10 06:45	Units:	mg/L			Prep Info	: Prep Da	te:		Prep Method	l:	
Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.0498	0.010	0.05		100	85	115		•		
Mercury	0.00100	0.0010	0.001	0.0000055	100	85	115				
Nickel	0.0491	0.010	0.05		98	85	115				
Selenium	0.0475	0.0050	0.05		95	85	115				
Silver	0.0186	0.0050	0.02	0.0001923	92	85	115				
Thallium	0.0496	0.10	0.05		99	85	115				
Vanadium	0.0493	0.10	0.05		99	85	115				
Zinc	0.0504	0.010	0.05	0.000548	100	85	115				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICPMS204-B_100	0415A: 35	SampType:	Sample Matri	x Spike		Sample	ID: H100401	86-004BMS	Method	: E200.8	
Analysis Date: 04/15/10 08:17	Units:	mg/L			Prep Info:	Prep Da	te:		Prep Method	d:	
Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.102	0.10	0.1	0.0009018	101	70	130				
Antimony	0.0954	0.0050	0.1		95	70	130				
Arsenic	0.100	0.0050	0.1		100	70	130				
Barium	0.0953	0.10	0.1		95	70	130				
Beryllium	0.103	0.0010	0.1		103	70	130				
Cadmium	0.0979	0.0010	0.1		98	70	130				
Chromium	0.104	0.010	0.1		104	70	130				
Cobalt	0.105	0.010	0.1	0.0002194	105	70	130				
Copper	0.108	0.010	0.1	0.0004026	108	70	130				
Lead	0.0982	0.010	0.1	0.0000714	98	70	130				
Manganese	0.104	0.010	0.1	0.0004406	103	70	130				
Mercury	0.00196	0.0010	0.002		98	70	130				
Nickel	0.104	0.010	0.1		104	70	130				
Selenium	0.102	0.0050	0.1		102	70	130				
Silver	0.0375	0.0050	0.04		94	70	130				
Thallium	0.0987	0.0050	0.1		99	70	130				
Vanadium	0.0995	0.10	0.1		100	70	130				
Zinc	0.108	0.010	0.1	0.005718	103	70	130				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted equery lights

A - Analyte concentration greater than three times the spike amount



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040186

Project: Residential Well Sampling - April 2010

BatchID: R61604

Run ID :Run Order: ICPMS204-B_1004	15A: 36	SampType:	Sample Matrix	Spike Duplicate		Sample I	D: H100401	86-004BMSD	Method	: E200.8	
Analysis Date: 04/15/10 08:23	Units:	mg/L			Prep Info:	Prep Da	te:		Prep Method	i:	
Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.102	0.10	0.1	0.0009018	102	70	130	0.1023	0.2	20	
Antimony	0.0966	0.0050	0.1		97	70	130	0.09536	1.3	20	
Arsenic	0.0977	0.0050	0.1		98	70	130	0.1002	2.5	20	
Barium	0.0964	0.10	0.1		96	70	130	0.09532		20	
Beryllium	0.105	0.0010	0.1		105	70	130	0.1029	1.9	20	
Cadmium	0.0992	0.0010	0.1		99	70	130	0.09786	1.4	20	
Chromium	0.103	0.010	0.1		103	70	130	0.1043	1.4	20	
Cobalt	0.104	0.010	0.1	0.0002194	104	70	130	0.1054	1.4	20	
Copper	0.105	0.010	0.1	0.0004026	105	70	130	0.1081	2.5	20	
Lead	0.0981	0.010	0.1	0.0000714	98	70	130	0.09822	0.1	20	
Manganese	0.101	0.010	0.1	0.0004406	101	70	130	0.1037	2.5	20	
Mercury	0.00205	0.0010	0.002		103	70	130	0.00196	4.7	20	
Nickel	0.102	0.010	0.1		102	70	130	0.104	1.8	20	
Selenium	0.0993	0.0050	0.1		. 99	70	130	0.1023	2.9	20	
Silver	0.0397	0.0050	0.04		99	70	130	0.0375	5.6	20	
Thallium	0.0984	0.0050	0.1		98	70	130	0.09868	0.3	20	
Vanadium	0.0995	0.10	0.1		100	70	130	0.09954		20	
Zinc	0.105	0.010	0.1	0.005718	99	70	130	0.1083	3.1	20	

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

N - Analyte concentration was not sufficiently high to calculate RPD



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Date: 19-Apr-10

Work Order: H10040186

BatchID: R61643

Run ID :Run Order: MAN-TECH_100415A: 3		SampType:	Method Blank	<u> </u>		Sample I	D: MBLK		Method	: A2320 B	
Analysis Date: 04/15/10 13:22	Units: n	ng/L			Prep Info:	Prep Da	te:		Prep Method	t:	
Analytes <u>1</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	ND	0.9									
Associated samples: H10040186-001A; H1004	I0186-002A;	H10040186-	003A; H1004	0186-004A							
Run ID :Run Order: MAN-TECH_100415A: 5		SampType:	Laboratory C	ontrol Sample		Sample I	D: LCS		Method	i: A2320 B	
Analysis Date: 04/15/10 13:32	Units: n	ng/L			Prep Info:	Prep Da	te:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	590	4.0	600		99	90	110				
Associated samples: H10040186-001A; H1004	10186-002A;	H10040186-	003A; H1004	0186-004A							
Run ID :Run Order: MAN-TECH_100415A: 13	-re e e e e e e e e e e e e e e e e e e	SampType:	Sample Matri	x Spike		Sample	ID: H100401	86-002AMS	Method	: A2320 B	
Analysis Date: 04/15/10 14:01	Units: n	ng/L			Prep Info:	Prep Da	te:		Prep Method	ł:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	810	4.0	600	142.5	<u>112</u>	90	110				S
Associated samples: H10040186-001A; H100 4	10186-002 A ;	H10040186-	003A; H1004	0186-004A							
Run ID :Run Order: MAN-TECH_100415A: 14		SampType:	Sample Matri	x Spike Duplicate		Sample	D: H100401	86-002AMSD	Method	: A2320 B	
Analysis Date: 04/15/10 14:10	Units: n	ng/L			Prep Info	Prep Da	ite:		Prep Method	ł:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	780	4.0	600	142.5	107	90	110	812.6	3.5	20	
Associated samples: H10040186-001A; H1004	10186-002A;	H10040186-	003A; H1004	0186-004A							
Run ID :Run Order: MAN-TECH_100415A: 18		SampType:	Sample Dupil	cate		Sample	ID: H100401	86-003ADUP	Methoc	i: A2320 B	man by the state
Analysis Date: 04/15/10 14:24	Units: n	ng/L			Prep Info	Prep Da	ite:		Prep Method	ł:	
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	140	4.0						141.9	0.1	20	
								173.1			

ND - Not Detected at the Reporting Limit Qualifiers:

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted eqq year lingits

A - Analyte concentration greater than three times the spike amount



Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT Client:

Work Order:

H10040186

Project: Residential Well	Sampling - Apr	il 2010	В	atchID: I	R61643						
Run ID :Run Order: MAN-TECH_1004154	\: 1	SampType:	Initial Calibra	tion Verification	on Standard	Sample	ID: ICV		Method	d: A2510 B	
Analysis Date: 04/15/10 13:14	Units: ur	nhos/cm			Prep Info:	Prep Da	ite:		Prep Method	d :	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	718	1.0	717.5		100	90	110			·	
Associated samples: H10040186-001A; H	10040186-002 A ; l	H10040186	-003A; H1004	0186-004A							
Run ID :Run Order: MAN-TECH_100415A	\: 4	SampType:	Laboratory C	ontrol Sample		Sample	ID: LCS		Method	d: A2510 B	<u>.</u>
Analysis Date: 04/15/10 13:24	Units: ur	nhos/cm			Prep Info:	Prep Da	ite:		Prep Method	d:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit_	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	1410	1.0	1412		100	90	110				
Associated samples: H10040186-001A; H	10040186-002A; I	H10040186	-003A; H1004	0186-004A		····			· · · · · · · · · · · · · · · · · · ·		
Run ID :Run Order: MAN-TECH_1004154	\: 19	SampType:	Sample Dupli	cate		Sample	ID: H100401	86-003ADUP	Method	d: A2510 B	
Analysis Date: 04/15/10 14:24	Units: ur	nhos/cm			Prep Info:	Prep Da	ite:		Prep Method	d:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	595	1.0					•	593.6	0.2	10	
Associated samples: H10040186-001A; H	10040186-002 A ; l	H10040186	-003A; H1004	0186-004A							
Run ID :Run Order: MAN-TECH_100415A	\: 30	SampType:	Continuing C	alibration Veri	ffication Standard	i Sample	ID: CCV		Metho	d: A2510 B	A 4-4 107 11 1-4-1
Analysis Date: 04/15/10 14:45	Units: ur	nhos/cm			Prep Info:	Prep Da	ate:		Prep Metho	d:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity	719	1.0	718		100	90	110				



Client: Work Order: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

H10040186

Drainet.

Residential Well Sampling April 2010

BatchID: R61643

Run ID :Run Order: MAN-TECH_100415A: 2		SampType:	Initial Calibra	tion Verification S	tandard	Sample	D: ICV		Method	d: A4500-H B	
Analysis Date: 04/15/10 13:16	Units:	mg/L			Prep Info:	Prep Da	te:		Prep Method	d:	
Analytes <u>1</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
	2.22	0.40			100	99	101				
Associated samples: H10040186-001A; H1004	6.99 0186-002A							٠			
ssociated samples: H10040186-001A; H1004		; H10040186-	003A; H1004 Sample Dupli					86-003ADUP	Method	d: A4500-H B	
Run ID :Run Order: MAN-TECH_100415A: 20		; H10040186 -			Prep Info:	Sample	D: H10040 1	86-003ADUP	Method Prep Method		
Analysis Date: 04/15/10 14:24	0186-002A	; H10040186 -	Sample Dupli			Sample Prep Da	D: H100401 te:	86-003ADUP RPD Ref Val		d:	Qua
pH Associated samples: H10040186-001A; H1004 Run ID :Run Order: MAN-TECH_100415A: 20 Analysis Date: 04/15/10 14:24 Analytes 1 pH	Units:	; H10040186- SampType: :	Sample Dupli	cate	Prep Info:	Sample Prep Da	D: H100401 te:		Prep Method	d:	

Run ID :Run Order: MAN-TECH_100415A: 31 SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: A4500-H B Prep Method: Analysis Date: 04/15/10 14:48 Units: mg/L Prep Info: Prep Date: %RPD RPDLimit Analytes 1 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val рΗ 7.00 0.10 100 99 101

Associated samples:



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Date: 19-Apr-10

A - Analyte concentration greater than three times the spike amount

Work Order:

H10040186

J - Analyte detected below quantitation limits

Project: Residential Well S	Sampling - Apr	il 2010	В	atchID: R	61666	_					
Run ID :Run Order: IC101-H_100415A: 1		SampType:	Initial Calibra	tion Verification	Standard	Sample	ID: ICV0415	10-12	Method	: E300.0	
Analysis Date: 04/15/10 15:57	Units: m	g/L			Prep Info	: Prep Da	ite:		Prep Method	l:	
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	12	1.0	12.5		94	90	110				
Sulfate	52	1.0	50		104	90	110				
Associated samples: H10040186-001A; H	10040186-002 A ;	H10040186	-003A; H1004	0186-004A							
Run ID :Run Order: IC101-H_100415A: 2		SampType:	Method Blank			Sample	ID: ICB0415	10-13	Method	: E300.0	
Analysis Date: 04/15/10 17:34	Units: m	g/L			Prep Info	: Prep Da	ite:		Prep Method	ł:	
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.05									
Sulfate	ND	0.1									
Associated samples: H10040186-001A; H	10040186-002 A ;	H10040186-	-003A; H1004	0186-004A							
Run ID :Run Order: IC101-H_100415A: 3		SampType:	Laboratory Fo	ortified Blank	Amended to the second of the second	Sample	ID: LFB041 !	510-14	Methoc	l: E300.0	
Analysis Date: 04/15/10 17:50	Units: m	g/L			Prep Info	: Prep Da	ite:		Prep Method	l:	
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Chloride	24	1.0	25		95	90	110				
Sulfate	51	1.0	50		102	90	110				
Associated samples: H10040186-001A; H	10040186-002 A ;	H10040186	-003A; H1004	0186-004A							
Run ID :Run Order: IC101-H_100415A: 4		SampType:	Continuing C	alibration Verific	ation Standar	d Sample	ID: CCV041	510-15	Method	: E300.0	
Analysis Date: 04/15/10 18:06	Units: m	g/L			Prep Info	: Prep Da	ite:		Prep Method	d:	
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Chloride	24	1.0	25		94	90	110				
Sulfate	50	1.0	50		99	90	110				
Associated samples: H10040186-001A; H	10040186-002A;	H10040186	-003A; H1004	0186-004A							
Run ID :Run Order: IC101-H_100415A: 8		SampType:	Sample Matri	x Spike		Sample	ID: H10040 1	186-002AMS	Methoc	: E300.0	
Analysis Date: 04/15/10 19:12	Units: mg/L					: Prep Da	ate:		Prep Method	d:	
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Chloride	57	1.0	25	31.66	101	90	110				
Chloride	٥,										

R - RPD outside accepted recovery lingis



Client: Work Order:

Project:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

H10040186

Residential Well Sampling - April 2010

BatchID: R61666

Run ID :Run Order: IC101-H_100415A: 8

SampType: Sample Matrix Spike

PQL

Sample ID: H10040186-002AMS

Method: E300.0

Date: 19-Apr-10

Analysis Date: 04/15/10 19:12

Units: mg/L

Prep Info: Prep Date:

Prep Method:

Analytes 2

Result

SPK value SPK Ref Val

%REC

LowLimit HighLimit RPD Ref Val

%RPD RPDLimit

Associated samples: H10040186-001A; H10040186-002A; H10040186-003A; H10040186-004A

Run ID :Run Order: IC101-H_100415A: 9						Sample	ID: H100401	86-002AMSD	Method	: E300.0	
Analysis Date: 04/15/10 19:29	•				Prep Info	: Prep Da	te:		Prep Method	i:	
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit		RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	57	1.0	25	31.66	101	90	110	57	0	20	-
Sulfate	150	1.0	50	102.1	102	90	110	153	0.1	20	

Associated samples: H10040186-001A; H10040186-002A; H10040186-003A; H10040186-004A



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order:

H10040186

Project:

Residential Well Sampling - April 2010

BatchID: R61703

Run ID :Run Order: ICP1-HE_100416A: 5		SampType:	Initial Calibra	tion Verification S	Standard	Sample	ID: ICV		Method	: E200.7	-
Analysis Date: 04/16/10 09:36	Units: m	ıg/L			Prep Info:	: Prep Da	ite:		Prep Method	l:	
Analytes <u>7</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	41.7	1.0	40		104	95	105				
Gold	2.01	0.10	2		100	95	105				
Iron	4.15	0.030	4		104	95	105				
Magnesium	41.2	1.0	40		103	95	105				
Potassium	38.2	1.0	40		96	95	105	•			
Sodium	39.2	1.0	40		98	95	105				
Tellurium	2.08	0.10	2		104	95	105				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICP1-HE_100416A: 7		SampType:	Continuing C	alibration Verifica	tion Standar	d Sample	ID: CCV-1		Method	: E200. 7	
Analysis Date: 04/16/10 09:44	Units: n	ng/L			Prep Info	: Prep Da	ite:		Prep Method	i :	
Analytes Z	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	25.9	1.0	25	, , , , , , , , , , , , , , , , , , , ,	104	95	105				
Gold	2.52	0.10	2.5		101	95	105				
Iron	2.60	0.030	2.5		104	95	105				
Magnesium	24.8	1.0	25		99	95	105				
Potassium	24.1	1.0	25		96	95	105				
Sodium	25.8	1.0	25		103	95	105				
Tellurium	2.60	0.10	2.5		104	95	105				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICP1-HE_100416A: 10		SampType: Interference Check Sample A				Sample I	D: ICSA		Method	: E200.7	
Analysis Date: 04/16/10 09:55	Units: n	Units: mg/L			Prep Info:	: Prep Da	te:		Prep Method	l:	
Analytes Z	Result					LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	571	1.0	500		114	80	120				
Gold	0.0211	0.10				0	0				
Iron	202	0.030	200		101	80	120				
Magnesium	579	1.0	500		116	80	120				
Potassium	0.0128	1.0				0	0				
Sodium	0.0529	1.0				0	0				
Tellurium	0.0350	0.10				0	0				

Qualifiers: ND - Not D

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted regovery limits

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order:

H10040186

Project:

Residential Well Sampling - April 2010

BatchID: R61703

Run ID :Run Order: ICP1-HE_100416A: 10

SampType: Interference Check Sample A

SPK value SPK Ref Val

Sample ID: ICSA

Method: **E200.7**

Analysis Date: 04/16/10 09:55

Units: mg/L

PQL

Prep Info: Prep Date:

Prep Method:

Analytes 7

Office. mg/c

Result

%REC Lo

LowLimit HighLimit RPD Ref Val

%RPD RPDLimit Qua

Date: 19-Apr-10

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICP1-HE_100416A: 11		SampType: Interference Check Sample AB					D: ICSAB		Method	: E200.7	
Analysis Date: 04/16/10 09:58	Units: r	ng/L			Prep Info	: Prep Da	te:		Prep Method	l:	
Analytes Z	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	547	1.0	500		109	80	120				
Gold	1.09	0.10	1		109	80	120				
fron	199	0.030	200		100	80	120				
Magnesium	560	1.0	500		112	80	120				
Potassium	20.7	1.0	20		103	80	120				
Sodium	20.3	1.0	20		101	80	120				
Tellurium	1.01	0.10	1		101	80	120				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICP1-HE_100416A: 12		SampType:	Continuing Ca	alibration Verifica	ation Standard	d Sample	D: CCV		Method	: E200.7	
Analysis Date: 04/16/10 10:02	Units: m	ng/L			Prep Info:	: Prep Da	te:		Prep Method	:	
Analytes Z	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	26.3	1.0	25	.,	105	90	110				
Gold	2.52	0.10	2.5		101	90	110				
Iron	2.64	0.030	2.5		106	90	110				
Magnesium	25.3	1.0	25		101	90	110				
Potassium	23.7	1.0	25		95	90	110				
Sodium	25.3	1.0	25		101	90	110				
Tellurium	2.59	0.10	2.5		104	90	110				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICP1-HE_100416A: 14	S	ampType:	Method Blank	•		Sample	ID: ICB		Method	i: E200.7		
Analysis Date: 04/16/10 10:12	Units: mg	Units: mg/L			Prep Info: Prep Date:				Prep Method:			
Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Calcium	ND	0.1										
Gold	ND	0.002										

Qualiflers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted regovery lingits

A - Analyte concentration greater than three times the spike amount



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040186

Project: Residential Well Sampling - April 2010

BatchID: R61703

Run ID :Run Order: ICP1-HE_100416A: 14		SampType:	Method Blank	T		Sample	ID: ICB		Method	: E200.7	,
Analysis Date: 04/16/10 10:12	Units: r	Units: mg/L			Prep Info:	: Prep Da	ate:		Prep Method	i:	
Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.002									
Magnesium	ND	0.02									
Potassium	ND	0.04									
Sodium	ND	0.1									
Tellurium	ND	0.01									

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run O	rder: ICP1-HE_100416A: 15		SampType: I	_aboratory Fo	ortified Blank		Sample I	D: LFB		Method	: E200.7	
Analysis Date:	04/16/10 10:16	Units: m	Units: mg/L			Prep Info	: Prep Da	te:		Prep Method	l:	
Analytes Z		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	\	9.80	1.0	10		98	85	115				
Gold		0.489	0.10	0.5		98	85	115				
Iron		1.02	0.030	1		102	85	115				
Magnesium		9.83	1.0	10		98	85	115				
Potassium		9.96	1.0	10		100	85	115				
Sodium		9.79	1.0	10		98	85	115				
Tellurium		0.433	0.10	0.5		87	85	115				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICP1-HE_100416A: 19		SampType:	Sample Matri	x Spike		Sample	D: H100401	86-003BMS2	Method	: E200.7	
Analysis Date: 04/16/10 10:28	Units: n	Units: mg/L			Prep Info:	Prep Da	te:		Prep Method	l:	
Analytes Z	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	74.5	1.0	20	54	102	70	130				
Gold	0.987	0.010	1		99	70	130				
Iron	2.09	0.030	2		104	70	130				
Magnesium	36.6	1.0	20	16.53	100	70	130				
Potassium	31.4	1.0	20	12.06	96	70	130				
Sodium	54.6	1.0	20	35.55	95	70	130				
Tellurium	0.792	0.025	1		79	70	130				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040186

Project: Residential Well Sampling - April 2010

BatchID: R61703

Run ID :Run Order: ICP1-HE_100416A: 20		SampType:	Sample Matri	k Spike Duplicate		Sample	D: H100401	86-003BMSD2	Method	: E200.7	
Analysis Date: 04/16/10 10:31	Units: n	ng/L			Prep Info:	: Prep Da	te:		Prep Method	d :	
Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	74.7	1.0	20	54	104	70	130	74.5	0.3	20	
Gold	0.973	0.010	1		97	70	130	0.9872	1.5	20	
Iron	2.06	0.030	2		103	70	130	2.088	1.4	20	
Magnesium	36.4	1.0	20	16.53	100	70	130	36.6	0.4	20	
Potassium	31.4	1.0	20	12.06	97	70	130	31.36	0.2	20	
Sodium	57.0	1.0	20	35.55	107	70	130	54.6	4.2	20	
Tellurium	0.827	0.025	1		83	70	130	0.7918	4.3	20	

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICP1-HE_100416A: 33		SampType: Interference Check Sample A				Sample	ID: ICSA		Method	: E200.7	
Analysis Date: 04/16/10 11:11	Units: r	Units: mg/L			Prep Info	: Prep Da	ite:		Prep Method	l:	
Analytes Z	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	542	. 1.0	500		108	80	120				
Gold	0.0230	0.10				0	0				
Iron	186	0.030	200		93	80	120				
Magnesium	547	1.0	500		109	80	120				
Potassium	0.0161	1.0				0	0				
Sodium	0.0495	1.0				0	0				
Tellurium	0.0420	0.10				0	0				

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B

Run ID :Run Order: ICP1-HE_100416A: 34		SampType: Interference Check Sample AB				Sample	ID: ICSAB		Method	: E200.7	
Analysis Date: 04/16/10 11:14	Units: n	Units: mg/L			Prep Info:	Prep Da	te:		Prep Method	l:	
Analytes Z	Result			%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Calcium	505	1.0	500		101	80	120				
Gold	0.997	0.10	1		100	80	120				
Iron	186	0.030	200		93	80	120				
Magnesium	547	1.0	500		109	80	120				
Potassium	19.6	1.0	20		98	80	120				
Sodium	19.6	1.0	20		98	80	120				
Tellurium	0.880	0.10	1		88	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted resovery limits

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Date: 19-Apr-10

Work Order: **Project:**

H10040186

Residential Well Sampling - April 2010

BatchID: R61703

Run ID :Run Order: ICP1-HE 100416A: 34

SampType: Interference Check Sample AB

Sample ID: ICSAB

Method: E200.7

Analysis Date: 04/16/10 11:14

Units: mg/L

PQL

Prep Info: Prep Date:

Prep Method:

Analytes 7

Result

SPK value SPK Ref Val

%REC

LowLimit HighLimit RPD Ref Val

%RPD RPDLimit

Associated samples: H10040186-001B; H10040186-002B; H10040186-003B; H10040186-004B



Workorder Receipt Checklist



H10040186

Montana Environmental Custodial Trust

Login completed by: Tracy L. Lorash Date Received: 4/14/2010 Reviewed by: BL2000\wjohnson Received by: TLL Reviewed Date: 4/19/2010 Carrier name: Hand Del Shipping container/cooler in good condition? Yes ✓ No 🔲 Not Present Custody seals intact on shipping container/cooler? Yes 🗌 No 🗌 Custody seals intact on sample bottles? Not Present ✓ Yes 🗌 No 🔲 Chain of custody present? Yes ✓ No 🗌 Chain of custody signed when relinquished and received? Yes ✓ No 🗌 Chain of custody agrees with sample labels? Yes 🔽 No 🗌 Samples in proper container/bottle? Yes ✓ No 🔲 Sample containers intact? Yes 🔽 No 🗌 Sufficient sample volume for indicated test? Yes ✓ No 🔲 All samples received within holding time? No 🗌 Container/Temp Blank temperature: 9.8°C From Field Water - VOA vials have zero headspace? Yes 🗌 No 🔲 No VOA vials submitted 🔽 Water - pH acceptable upon receipt? Not Applicable No 🗌

Contact and Corrective Action Comments:

None

VALIDATION SUMMARY MONTANA ENVIRONMENTAL TRUST GROUP, LLC EAST HELENA PLANT RCRA CONSENT DECREE MONTHLY RESIDENTIAL WELL MONITORING PROGRAM INORGANIC ANALYSES APRIL 2010 SAMPLE EVENT ENERGY LABORATORY WORK ORDER NO.

Prepared for:
Mr. Marc Weinreich
Montana Environmental Trust Group
15001 Winged Bluff Lane
Draper, UT 84020

H10040032

Prepared by: Linda L. Tangen 6900 Cherry Blossom Lane Albuquerque, NM 87111

April 2010

TABLE OF CONTENTS

LIS	T OF APPENDICES	ii
GLO	OSSARY OF TERMS	. iii
SUN	MMARY	1
1.	INTRODUCTION	3
2.	DELIVERABLES	3
3.	FIELD PROCEDURES	3
4.	FIELD BLANKS	4
5.	FIELD DUPLICATES	5
6.	LABORATORY PROCEDURES	5
7.	DETECTION LIMITS	5
8.	LABORATORY BLANKS	6
9.	LABORATORY MATRIX SPIKES	6
10.	LABORATORY DUPLICATES	6
11.	LABORATORY CONTROL STANDARDS (LCS)	7
12.	INTERPARAMETER COMPARISON	7
13.	HISTORICAL COMPARISON SUMMARY	8
14.	DATA QUALITY OBJECTIVES (DQOS)	8
15.	CONCLUSION	9
DFI	FFDFNCFS	10

LIST OF APPENDICES

APPENDIX 1: DATABASE

APPENDIX 2: FIELD NOTES

APPENDIX 3: CHAIN OF CUSTODY

APPENDIX 4: LABORATORY REPORT

GLOSSARY OF TERMS

(Not all of these acronyms may be used in this document)

CLP	. Contract Laboratory Program
COC	. Chain of Custody
CRDL	. Contract Required Detection Limit
DI	. Deionized Water
DIS	. Dissolved
DQO	Data Quality Objective
ELI-Hel	. Energy Laboratories, Inc., Helena, Montana
EPA	.U.S. Environmental Protection Agency
ICV	. Initial Calibration Verification
IDL	Instrument Detection Limit
LCS	. Laboratory Control Sample
LFB	. Laboratory Fortified Blank
MS	. Matrix Spike
METG	Montana Environmental Trust Group, LLC
NA	. Not Applicable
PDLG	Project Detection Limit Goal
QC	. Quality Control
RCRA	Resource and Conservation Recovery Act
RPD	. Relative Percent Difference
SC	Specific Conductivity
TDS	. Total Dissolved Solids

SUMMARY

Groundwater samples were collected from East Helena residential groundwater wells on April 2, 2010 for the Montana Environmental Trust Group, LLC's (METG) monthly monitoring program. These samples were collected according to the U.S. Environmental Protection Agency's (EPA) Resource and Conservation Recovery Act (RCRA) Consent Decree Monitoring Program (ASARCO 2009), which is administered by the Montana Environmental Trust Group, LLC (METG). Inorganic constituents for these samples were validated using EPA guidelines for data validation (EPA 2004) and the project work plan (ASARCO 2009). Samples were analyzed by Energy Laboratories, Inc. (ELI-Hel) in Helena, Montana, under work order H1004032.

The validated database is located in Appendix 1. Field notes, chain of custody forms, and laboratory reports are located in Appendices 2, 3, and 4, respectively.

Data quality objectives for this project are as follows:

- Precision is determined by field and laboratory duplicate sample results that are within control limits. The completeness objective for precision is 90% of the duplicate sample results within control limits. This objective was met as 100% (33 out 33 results) of the field duplicate and 100% (52 out of 52 results) of the laboratory duplicate results were in control limits. The overall precision was calculated at 100% (85 out of 85 results).
- Accuracy is determined by laboratory control sample (LCS) and matrix spike (MS) sample results that are within control limits. The completeness objective for accuracy is 90% of the LCS and MS sample results within control limits. This objective was met as 100% (38 out of 38 results) of the LCS results and 100% (57 out of 57 results) of the MS results were within control limits. The overall accuracy was calculated at 100% (104 out of 104 results).
- Completeness is calculated by the number of valid (not rejected) data per number of planned data, expressed as a percentage. The completeness goal for this project was 90%. This goal was met as 100% (177 out of 177 results) of the planned data were analyzed and deemed valid.

Qualified Data Summary

No data were qualified due to this review.

Conclusion

The data collected in April 2010 for the METG East Helena RCRA Consent Decree's monthly residential well monitoring program are deemed acceptable and can be used for the purposes they were intended. Of the measured results, 100% (177 out of 177 results) can be used without qualification.

Data Validation Report by:

Linda L. Tangen

Client Review:

Jon Nickel

Montana Environmental Trust Group

DATA VALIDATION REPORT

1. Introduction

2.

3.

• This validation applies to analyses for five groundwater and quality control samples collected on April 2, 2010 for the METG East Helena RCRA Consent Decree's monthly residential well monitoring program (ASARCO 2009). Samples were analyzed by Energy Laboratories in Helena, Montana (ELI-Hel) under work order H10040032. One field blank and one field duplicate sample was included with these samples.

•	Validation procedures used are generally consistent with: X EPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganics Data Review (EPA 2004) X ASARCO East Helena Plant RCRA Consent Decree Monitoring Plan (ASARCO 2009) Other
•	Overall level of validation: CLP Standard – Field and laboratory quality control (QC) samples are reviewed; and samples associated with QC violations are flagged. Visual
DE	LIVERABLES
•	All laboratory document deliverables were present and accurate as specified in the CLP-Statement of Work (EPA 2001), and/or the project contract. _X_YesNo
•	All documentation of field procedures was provided as required. _X_YesNo
FIE	LD PROCEDURES
•	Samples were collected from all project-required sites. Yes X No - see notes Notes: Samples were not collected at site 109 Gail because the well was shut down for the winter. This omission was not subtracted from the project's completeness.

•	Field parameters were measured in accordance with the project work plan. _X_YesNo
•	Field instruments were calibrated daily and before measurements were collected. _X_YesNo
•	Chains of Custodies (COCs) were properly filled out and signed by the field personnel. _X_YesNo
•	Data entry into field books, on COCs, and on sample labels were accurate and complete. X Yes No
•	Samples were properly preserved in the field. Yes X No – see notes Notes: The samples were received by the laboratory at a temperature of 8.0°C instead of the required 4-6 °C. However, they were delivered directly from the field and did not have time to cool to the proper temperature. Therefore, the samples' quality was not affected.
FIE	LD BLANKS
	nks: Please note that the highest blank value associated with any particular analyte is the nk value used for the flagging process.
	Deionized water (DI), trip, rinsate, or any other field blanks have been carried out at the proper frequency (one rinsate blank and one DI blank per event). X Yes No
	Reported results on the field blanks were less than the Project Detection Limit Goals (PDLGs) or reporting limit. X Yes No

4.

5.	FIELD DUPLICATES
	Field duplicates have been collected at the proper frequency (one field duplicate per event). _X_YesNo
	Field duplicate relative percent differences (RPDs) were within the required control limits (RPD of 20% or less). If the sample or duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In these cases, the difference between the sample and the duplicate results must be within ± the PDLG. X Yes No
6.	LABORATORY PROCEDURES
	Laboratory procedures followed
	X CLP-Statement of Work (EPA 2001)
	SW-846 (EPA 1986)
	X Methods for Chemical Analysis of Water and Wastes (EPA 1983)
	Holding times met
	X_Yes
	No
	Consistency with project requirements
	Analyses were carried out as required by the project work plan (ASARCO
	2009).
	X Yes
	No
	Project specified methods were used. X Yes No
7.	DETECTION LIMITS
	• Reporting detection limits met PDLGs.

_X_Yes ____No

8. LABORATORY BLANKS

Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.

• Method blanks were prepared and analyzed at the required frequency (one per batch or one per 20 samples, whichever is greater.

_X_Yes ____No

• All the analytes in the blank were less than the PDLG.

X Yes No

9. LABORATORY MATRIX SPIKES

• A Matrix Spike (MS) sample (pre-digestion) was analyzed at the proper frequency (one per batch and/or matrix).

X Yes

• MS recoveries were within the required control limits (75-125%).

_X Yes ____ No

10. LABORATORY DUPLICATES

• Laboratory duplicate samples were analyzed at the proper frequency (one per batch or one per 20 samples, whichever is greater).

X Yes

RPDs were within the required control limits (RPD of 20% or less). If the sample or
duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In
these cases, the difference between the sample and the duplicate results must be within ±
the PDLG.

X Yes

11. LABORATORY CONTROL STANDARDS (LCS)

Laboratory Fortified Blanks (LFBs) were used in lieu of LCS' for metal analyses. This is acceptable for the purpose of the project.

•	The reference material used for the LCS or LFB was of the correct matrix.				
	X Yes				
	No				
•	LCS' or LFBs were prepared and analyzed at the proper frequency (one per batch or one				
	per 20 samples, whichever is greater).				
	X Yes				
	No				
•	LCS recoveries were within the required control limits (80-120% or certified range).				

12. INTERPARAMETER COMPARISON

X Yes

X	_Lab pH vs. Field pH.
X	Lab Specific Conductivity (SC) vs. Field Sc
X	_Total Dissolved Solids (TDS) vs. Lab SC
X	Ion Balance

Notes: RPDs were used to compare associated measurements. If the RPD was greater than 20, the measurements were then compared to other analytes and/or historical data to determine if they were valid or anomalies. Following is a summary of these comparisons.

Lab pH vs. Field pH: All field and lab pH comparisons were in order (pairs had RPDs less than 20). The RPDs for pH pairs ranged from 11.0% to 18.9%, with an average RPD of 15.5%.

Lab SC vs. Field SC: All field and lab SC comparisons were in order (pairs had RPDs less than 20). The RPDs for SC pairs ranged from 17.5% to 19.4%, with an average RPD of 18.3%.

TDS vs. Lab SC: The ratio of TDS to lab SC should lie between 0.55 and 0.75. In natural waters with high sulfate, the ratio may be much higher. This ratio is intended to be a check on the accuracy of the TDS and lab SC measurements. (It should be noted that these measurements are less accurate in dilute waters.) For this sampling event, the ratios were in line with historical data. The TDS/SC ratios ranged from 0.70 to 0.75, with an average ratio of 0.73.

Ion Balance: All ion balances were in order (RPDs were less than 20 but preferably, less than 10). The ion balances ranged from 4.14% to 5.73%, with an average RPD of 4.68%.

13. HISTORICAL COMPARISON SUMMARY

Data for this sampling event were compared with the previous five years of sampling events. All of this sampling event's results were less than three standard deviations from the historical mean.

14. DATA QUALITY OBJECTIVES (DQOS)

• The data quality goal was met for precision (90% of the field and laboratory duplicates were within control limits).

X Yes –see the following table
No

Precision Objectives

QC Type	Total Results	# of Results Out of Control Limits	# of Results Within Control Limits	% Within Control Limits
Field Duplicates	33	0	33	100.0%
Lab Duplicates	52	0	52	100.0%
Overall	85	0	85	100.0%

• The data quality goal was met for accuracy (90% of the LCS and matrix spike results were within control limits).

X Yes – see the following table
No

Accuracy Objectives

	Total	# of Results Out # of Results Withi		% Within
QC Type	Results	of Control Limits	Control Limits	Control Limits
LCS' and LFBs	38	0	38	100.0%
Matrix Spikes	57	. 0	57	100.0%
Overall	95	0	95	100.0%

• DQO target for completeness was met (the number of valid results divided by the number of possible results is 90% or above).

X Yes – see the following table

Completeness

# of Planned Actual # of Measurements Measuremen		# of Rejected Measurements	# of Valid Measurements	Completeness
177	177	0	177	100%

• Samples were qualified for QC exceedances and deficiencies.

Qualification of Samples

	# of Qualified		
# of Measurements	Measurements	# Not Qualified	% Not Qualified
177	0	177	100%

15. CONCLUSION

The data collected in April 2010 for the METG East Helena RCRA Consent Decree's monthly residential well monitoring program are deemed acceptable and can be used for the purposes they were intended.

REFERENCES

- ASARCO 2009. ASARCO East Helena Plant RCRA Consent Decree Monitoring Plan. ASARCO LLC. March.
- EPA 1983. Methods for Chemical Analysis of Water and Wastes. United States Environmental Protection Agency. March.
- EPA 1986. Test Method for Evaluating Solid Waste: Physical/Chemical Methods 3rd Ed. 4 Vols. United States Environmental Protection Agency. December.
- EPA 2001. USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis.

 United States Environmental Protection Agency. Document Number ILM05.2.

 December.
- EPA 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. United States Environmental Protection Agency. Document Number OSWER 9240.1-45. EPA 540-R-04-004. October.

APPENDIX 1

DATABASE

East Helena Residential Monthly Sampling Event - April 2010

Database: ASARCO, East Helena Plant

Table of Contents by Station Type

Page	Station Type	Station Name
1	Domestic Wells	203Gail
1	Domestic Wells	401Gail
1	Domestic Wells	2540 Wylie
3	Field Quality Control	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

East Helena Residential Monthly Sampling Event - April 2010

Database: ASARCO, East Helena Plant

Table of Contents By Lab Sample ID

Page P	Lab Sample ID	Sample ID	Sample Date	Station Name
1	H10040032-001	EHR-0410-300	4/2/2010	401Gail
1	H10040032-002	EHR-0410-301	4/2/2010	203Gail
1	H10040032-003	EHR-0410-302	4/2/2010	203Gail
1	H10040032-004	EHR-0410-303	4/2/2010	2540 Wylie
3	H10040032-005	EHR-0410-304	4/2/2010	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

East Helena Residential Monthly Sampling Event - April 2010

Database: ASARCO, East Helena Plant

Table of Contents by Sample ID

Page	Sample ID	<u>Lab Sample ID</u>	Sample Date	Station Name
1	EHR-0410-300	H10040032-001	4/2/2010	401Gail
1	EHR-0410-301	H10040032-002	4/2/2010	203Gail
1	EHR-0410-302	H10040032-003	4/2/2010	203Gail
1	EHR-0410-303	H10040032-004	4/2/2010	2540 Wylie
3	EHR-0410-304	H10040032-005	4/2/2010	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

East Helena Residential Monthly Sampling Event - April 2010

Database: ASARCO, East Helena Plant

ample Matrix	STATION	203 Gail	203Gail	2540 Wylie	401Gs
Vater	SAMPLE DATE	4/2/2010	4/2/2010	4/2/2010	4/2/201
	SAMPLE TIME	09:00	09:20	11:00	08:1
	LAB	ELI	ELI	ELI	EI
	LAB NUMBER	H10040032-002	H10040032-003 H10040032-004		H10040032-00
	SAMPLE NUMBER	EHR-0410-301	EHR-0410-302	EHR-0410-303	EHR-0410-30
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic We
	GROUP	Private Wells	Private Wells	Private Wells	Private Wel
	DESCRIPTION				
	REMARKS		Field Duplicate		
Common lons (n	ng/L): ppm unless not	ted			
	Bicarbonate (HCO3)	95	95	140	15
	Calcium (Ca) (DIS)	29	29	57	9
	Chloride (CI)	4	4	7	2
1	Magnesium (Mg) (DIS)	7	7	12	2
	Potassium (K) (DIS)	2	2	5	-
	Sodium (Na) (DIS)	13	13	17	2
	Sulfate (SO4)	53	53	120	23
.Total	.Alkalinity As CACO3	78	78	120	12
	pm unless noted				
	Aluminum (Al) (DIS)	<0.1	<0.1	<0.1	<0
	Antimony (Sb) (DIS)	< 0.003	<0.003	<0.003	<0.00
	Arsenic (As) (DIS)	<0.002	<0.002	<0.002	0.00
	Barium (Ba) (DIS)	<0.1	<0.1	<0.1	<0
	Beryllium (Be) (DIS)	<0.001	< 0.001	<0.001	<0.00
	Cadmium (Cd) (DIS)	<0.001	< 0.001	<0.001	<0.00
	Chromium (Cr) (DIS)	100.0>	<0.001	<0.001	<0.00
	Cobali (Co) (DIS)	<0.01	<0.01	<0.01	<0.0
	Copper (Cu) (DIS)	0.018	0.018	0.002	0.00
	Gold (Au) (DIS)	<0.01	<0.01	<0.01	<0.0
	Iron (Fe) (DIS)	< 0.02	<0.02	<0.02	0.0
	Lead (Pb) (DIS)	< 0.005	<0.005	<0.005	<0.00
1	Manganese (Mn) (DIS)	<0.01	<0.01	<0.01	0.0
	Mercury (Hg) (DIS)	<0.001	<0.001	<0.001	<0.00
	Nickel (Ni) (DIS)	<0.01	<0.01	<0.01	<0.0
	Selenium (Se) (DIS) <0.001		<0.001	0.003	0.02
	Silver (Ag) (DIS)	< 0.005	< 0.005	<0.005	<0.00
	Tellurium (Te) (DIS)	<0.1	<0.1	<0.1	<0
	Thallium (TI) (DIS)	< 0.001	< 0.001	<0.001	<0.00
	Vanadium (V) (DIS)	<0.01	<0.01	<0.01	<0.0
	Zinc (Zn) (DIS)	< 0.01	<0.01	0.02	0.0
hysical/Fld-Lat	b: ppm unless noted				
C	Oxygen (O) (DIS) (Fld)	7.64		7.31	5.0
	рН	7.7	7.8	7.8	7
				6.45	6.5
	pH (Fld)	6.9		0.43	0
SC (un	pH (Fld) nhos/em at 25 C) (Fld)	6.9 233		390	62

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

East Helena Residential Monthly Sampling Event - April 2010

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	203 Gail	203Gail	2540 Wylie	401 Cail
Water	SAMPLE DATE	4/2/2010	4/2/2010	4/2/2010	4/2/2010
	SAMPLE TIME	09:00	09:20	11:00	08:15
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H10040032-002	H10040032-003	H10040032-004	H10040032-001
	SAMPLE NUMBER	EHR-0410-301	EHR-0410-302	EHR-0410-303	EHR-0410-300
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION				
	REMARKS		Field Duplicate		
Physical/Fld-Lal	b: ppm unless noted				
	Total Suspended Solids	<10	<10	<10	<10
TD	S (Measured at 180 C)	196	195	347	564
Water	Temperature (C) (Fld)	10.2		9.4	11.4~

East Helena Residential Monthly Sampling Event - April 2010

Database: ASARCO, East Helena Plant

Comple Mad	COT A STREET	Childri.
Sample Matrix Water	STATION SAMPLE DATE	FieldBlank 4/2/2010
aici	SAMPLE DATE	11:30
	LAB	ELI
	LAB NUMBER	H10040032-005
	SAMPLE NUMBER	EHR-0410-304
	TYPE	Field QC
	GROUP	Private Wells
	DESCRIPTION	Wells
	REMARKS	Blank
Common lons (mg/L): ppm unless not	ed
	Bicarbonate (HCO3)	<1
	Calcium (Ca) (DIS)	<1
	Chloride (CI)	<1
	Magnesium (Mg) (DIS)	<1
	Potassium (K.) (DIS)	<1
	Sodium (Na) (DIS)	<1
	Sulfate (SO4)	</td
Tota	d Alkalinity As CACO3	</td
Metals (mg/L): p	opm unless noted	
	Aluminum (Af) (DIS)	<0.1
	Antimony (Sb) (DIS)	< 0.003
	Arsenic (As) (DIS)	< 0.002
	Barium (Ba) (DIS)	<0.1
	Beryllium (Be) (DIS)	< 0.001
	Cadmium (Cd) (DIS)	< 0.001
	Chromium (Cr) (DIS)	< 0.001
	Cobali (Co) (DIS)	< 0.01
	Copper (Cu) (DIS)	< 0.001
	Gold (Au) (DIS)	< 0.01
	Iron (Fe) (DIS)	<0.02
	Lead (Pb) (DIS)	< 0.005
	Manganese (Mn) (DIS)	<0.01
	Mercury (Hg) (DIS)	< 0.001
	Nickel (Ni) (DIS)	<0.01
	Selenium (Se) (DIS)	<0.001
	Silver (Ag) (DIS)	< 0.005
	Tellurium (Te) (DIS)	<0.1
	Thallium (TI) (D1S)	< 0.001
	Vanadium (V) (DIS)	<0.01
	Zinc (Zn) (DIS)	<0.01.
Physical/Fld-La	b: ppm unless noted	
	рН	5.4
9	SC (umhos/cm at 25 C)	<1
	Total Suspended Solids	<10
	S (Measured at 180 C)	<10
		-10

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

APPENDIX 2

FIELD NOTES

TEDICM :
1748-0410-301 ORIGINAL
EIR-0410-302 FIELD WALKATE
Somple addlected from Front Yard Spilot
203 CALL SIVEOT
pb (6.905W)
CONDUCTIVITY 23:3 LIMBOSILM
0.0 7.64 mg/l,
TOMP 10,2°C
MORDSTROM IRPRILATION WELL WINTERIZED
(Simpo)
DINAVING WATER SUPPLY
EIR-0410-303
2540 3 MIC DVIOC
SOMPLE COLLECTION FROM FRONT YOU'D
SAUT
ph 6.45 SW
taxavanum 390 umhos lum
D.O 7.31 WYLC:
END-0410-304 FIELD BLANK

APPENDIX 3 CHAIN OF CUSTODIES

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Signed

Sample Disposal:

Return to Client:

Company Name: MMTMA TRUST 640	OMPANY NAME: MONTANA ENVIRONMENTAL TRUST GROUP				EH?	IAL	Perm	it, Etc. Li L SAM	NO-	TERM Jo-A	n Rij Undil	FS 2010	Samp State	ole Origin : MT	Yes [-
Report Mail Address: P.O. R.O. EAST I	L 12 IELI	L30 ENA,M	T59635	Contact N	Name:	妃	_	Phone/Fi (406)2		1529			Emai	:	ł.	er: (Please Print)
nvoice Address:				Invoice C	ontac	(& PI	none:	· ·					Purch	nase Order:	Quote	Bottle Order:
Special Report/Formats – EL prior to sample submittal for t			fied	180 180 180 180 180		AR		7818 RI	30 U			6	R	Contact ELI prior RUSH sample su for charges and	bmittal	Shipped by: Cooler ib(e):
□ DW □	A2LA			Containe A W S V cils/Solic	KAIN.						SHED	Ind (TA	U	scheduling – See Instruction Page Comments:		Receipt Jemp
GSA DOTWWWTP	EDD/ Form	/EDT(Elect	tronic Data)	Number of Containers Sample Type: A W S V B O Air Water Soits Soids Veoelation Bioassay Other	WO'S	3					ATTACHED	Normal Turnaround (TAT)	S			On ice:
	NEL/	AC AC		Sem Sem	On u. a. Dayameral	CANIMACA (OLC)	MOTOLS				SEE	Normal	H			Custody Seal Y Bottles/ Coolers B
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	C	ollection Date	Collection Time	MATRIX			Ž									Intact Y Signature Y Match
342-0410-300 BAW	412	12010	8:15	GW	X	X					X	Х				► H10040
2112-0410-300 METAL		<u> </u>	8.15				X				1					
242-0410-301 RAW			9.00		/	X								·		
2412-0410-301 METAL		1	91,00				X									
3112-0410-302 PAW			7:20		<u> </u>	X										
312-0410-302 METAL		<u> </u>	9.20				X									ATORY
712-0410-303 RAW			11.00		X	X			_							
718-0410-303 METAL			11:00				X				$\perp \downarrow \downarrow$	Ш				
HR-0410-304 RAW			11:30		X	X										4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EHR-0410,304 METAL		}	11:30	- 1			X				1					7

Lab Disposal:

TABLE 3. SAMPLING ANALYTICAL PARAMETERS FOR ANNUAL RESIDENTIAL AND PWS WELL MONITORING PROGRAM, SEMI-ANNUAL LONG-TERM MONITORING PROGRAM, AND CAMU MONITORING PROGRAM

Parameter	Analytical Technique	Analytical Method	Project Detection Limit (mg/L)
Physical Paramoters .		Section 1995	
PH	PH Meter	SM 4500H-B	
Specific Conductivity	SC Meter	SM 2510 B	
TDS	Gravimetric	SM 2540C	10
TSS	Gravimetrie	SM 2540D	10
Centinon Ions	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1	
Alkalinity	Titrimetric	SM 2320 B	1
Bicarbonate	Titrimetric	SM 2320 B	1
Sulfate	Turbidimetric	SM 4500SO4 E	1
Chloride	Colorimetric	SM 4500 CL C	1
Calcium	ICP	200.7	5
Magnesium	ICP	200.7	5
Sodium	ICP	200.7	5
Potassium	ICP	200.7	5
Arsenic and Metals (Ground	dwater Dissolved ?	erface Water Dissolved a	nd Total)
Arsenic	ICP/ICP-MS	200.7/200.8	0,002
Cadmium	ICP/ICP-MS	200.7/200.8	0,001
Copper	ICP/ICP-MS	200.7/200.8	0.001
Iron	ICP/ICP-MS	200.7/200.8	0.02
Manganese	ICP/ICP-MS	200.7/200.8	0.01
Lead	ICP/ICP-MS	200.7/200.8	0.005
Selenium	ICP/ICP-MS	200.7/200.8	0.001
Zinc	ІСРЛСР-МЅ	200.7/200.8	0.02
Supplemental Trace Metals	(Groundwater Di	served Surface Water Die	ored and Total)
Aluminum	ICP/ICP-MS	200.7/200.8	0.1
Antimony	ICP/ICP-MS	200.7/200.8	0.003
Barium	ICP/ICP-MS	200.7/200.8	0.1
Beryllium	ICP/ICP-MS	200.7/200.8	0.001
Chromium	ІСР/ІСР-МЅ	200.7/200.8	0.001
Cobalt	ICP/ICP-MS	200.7/200.8	0.01
Gold	ICP/ICP-MS	200.7/200,8	0.01
Mercury	ICP/ICP-MS	200.8/E245.1	0.001
Nickel	ICP/ICP-MS	200,7/200.8	0.01
Silver	ICP/ICP-MS	200.7/200,8	0.005
Tellurium	ICP/ICP-MS	200.7/200.8	0.1
Thallium	ICP/ICP-MS	200.7/200,8	0.001
Vanadium	ICP/ICP-MS	200.7/200.8	0.01
	Victor and an area		
SWL	Electric Tape	HF-SOP-10	0.01 N
Temperature	PH Meter	HF-SOP-20	NA NA
Dissolved Oxygen (DO)	DO Meter	HF-SOP-22	NA
PH	pH Meter	HF-SOP-20	NA NA
Specific Conductivity (SC)	SC Meter	1LF-SOP-79	NA NA

H/Files/007 ASARCO/1054/2009 Marg Plan/R09 GW-SW SMP/Doc/HQ.N/5/19/09/065

5/19/09\3:48 AM(

APPENDIX 4

LABORATORY REPORT



ANALYTICAL SUMMARY REPORT

April 15, 2010

Jon Nickel

Montana Environmental Custodial Trust

PO Box 1230

E. Helena, MT 59635-1230

Workorder No.: H10040032

Quote ID: H493 - All Water Sampling combined

Project Name: Long-Term RI/FS Residential Well Sampling-Apr 2010

Energy Laboratories Inc received the following 5 samples for Montana Environmental Custodial Trust on 4/2/2010 for analysis.

Sample ID	Client Sample ID	Collect Date Receive I	ate Matrix	Test
H10040032-001	EHR-0410-300	04/02/10 8:15 04/02/1	0 Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Anions by Ion Chromatography pH Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H10040032-002	EHR-0410-301	04/02/10 9:00 04/02/1	0 Aqueous	Same As Above
H10040032-003	EHR-0410-302	04/02/10 9:20 04/02/1	0 Aqueous	Same As Above
H10040032-004	EHR-0410-303	04/02/10 11:00 04/02/1	0 Aqueous	Same As Above
H10040032-005	EHR-0410-304	04/02/10 11:30 04/02/1	0 Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005

eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002

eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006

eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945

eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012

eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4℃ (±2℃)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By:

math
Dec Hayy
Assistant Laboratory Manager - Helena

Digitally signed by Jon Hager

Date: 2010.04.16 14:47:36 -06:00

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-300

H10040032-001

Lab ID: Matrix:

Aqueous

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Collection Date: 04/02/10 08:15

DateReceived: 04/02/10

Report Date: 04/15/10

Analyses	Resul	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											·
pH	7.7	s.u.		0.1		A4500-H B	04/05/10 17:23 / hm		MAN-TECH_10	00405A : 8	R61360
Conductivity	750	umhos/cm		1		A2510 B	04/05/10 17:23 / hm		MAN-TECH_10	00405A : 7	R61360
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/07/10 15:19 / hm	04/07/10 14:42 J-1:	24 (14410200) 10	00407A : 5	8426
Solids, Total Dissolved TDS @ 180 C	564	mg/L		10		A2540 C	04/07/10 15:06 / hm	04/07/10 14:38 J-1	24 (14410200)_10	00407B:4	8424
NORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	04/05/10 17:23 / hm		MAN-TECH 10	00405A : 6	R61360
Bicarbonate as HCO3	150	mg/L		1		A2320 B	04/05/10 17:23 / hm		MAN-TECH_10		R61360
Chloride	27	mg/L		1		E300.0	04/06/10 22:30 / hm		IC101-H 1004		R61386
Sulfate	230	mg/L		1		E300.0	04/06/10 22:30 / hm		IC101-H_1004		R61386
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/06/10 19:14 / dck	i	CPMS204-B 100	0406A : 60	R61389
Antimony	ND	mg/L		0.003		E200.8	04/06/10 19:14 / dck		CPMS204-B 100		R61389
Arsenic	0.002	mg/L		0.002		E200.8	04/06/10 19:14 / dck		CPMS204-B 100		R61389
Barium	ND	mg/L		0.1		E200.8	04/06/10 19:14 / dck		CPMS204-B 100		R61389
Beryllium	ND	mg/L		0.001		E200.8	04/06/10 19:14 / dck	İ	CPMS204-B_100	0406A : 60	R61389
Cadmium	ND	mg/L		0.001		E200.8	04/06/10 19:14 / dck		CPMS204-B_100		R61389
Calcium	95	mg/L		1		E200.7	04/06/10 13:14 / sld		ICP1-HE_100		R61387
Chromium	ND	mg/L		0.001		E200.8	04/06/10 19:14 / dck	1	CPMS204-B_100	406A:60	R61389
Cobalt	ND	mg/L		0.01		E200.8	04/06/10 19:14 / dck	ĺ	CPMS204-B_100	0406A : 60	R61389
Copper	0.004	mg/L		0.001		E200.8	04/06/10 19:14 / dck	1	CPMS204-B_100	406A : 60	R61389
Gold	ND	mg/L		0.01		E200.7	04/06/10 13:14 / sld		ICP1-HE_100		R61387
ron	0.09	mg/L		0.02		E200:7	04/06/10 13:14 / sld		ICP1-HE_100	406A : 52	R61387
_ead	ND	mg/L		0.005		E200.8	04/06/10 19:14 / dck	I	CPMS204-B_100	406A : 60	R61389
Magnesium	21	mg/L		1		E200.7	04/06/10 13:14 / sld		ICP1-HE_100	406A : 52	R61387
Manganese	0.02	mg/L		0.01		E200.8	04/06/10 19:14 / dck	1	CPMS204-B_100	406A : 60	R61389
Mercury	ND	mg/L		0.001		E200.8	04/06/10 19:14 / dck		CPMS204-B_100	406A : 60	R61389
Nickel	ND	mg/L		0.01		E200.8	04/06/10 19:14 / dck	. [CPMS204-B_100	406A : 60	R61389
otassium	6	mg/L		1		E200.7	04/06/10 13:14 / sld		ICP1-HE_100	406A : 52	R61387
Selenium	0.022	mg/L		0.001		E200.8	04/08/10 19:07 / dck	1	CPMS204-B_100	408A : 84	R61467
Silver	ND	mg/L		0.005		E200.8	04/06/10 19:14 / dck	l	CPMS204-B 100	406A : 60	R61389

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-300

Lab ID: Matrix:

H10040032-001

Aqueous

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Collection Date: 04/02/10 08:15

DateReceived: 04/02/10

Report Date: 04/15/10

Analyses	Resu	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED										· · · · ·	
Sodium	24	mg/L		1		E200.7	04/06/10 13:14 / sld		ICP1-HE_10040	6A:52	R61387
Tellurium	ND	mg/L		0.1		E200.7	04/07/10 16:44 / sld		ICP1-HE_10040	7B : 15	R61433
Thallium	ND	mg/L		0.001		E200.8	04/06/10 19:14 / dck		ICPMS204-B_10040	6A:60	R61389
Vanadium	ND	mg/L		0.01		E200.8	04/06/10 19:14 / dck		ICPMS204-B_10040	6A:60	R61389
Zinc	0.04	mg/L		0.01		E200.8	04/06/10 19:14 / dck		ICPMS204-B_10040	6A:60	R61389

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-301

H10040032-002

Lab ID: Matrix:

Agueous

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Collection Date: 04/02/10 09:00

DateReceived: 04/02/10

Report Date: 04/15/10

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID .	Run Order	BatchID
PHYSICAL PROPERTIES		· · · · · · · · · · · · · · · · · · ·							·		
pH	7.7	s.u.		0.1		A4500-H B	04/05/10 17:36 / hm		MAN-TECH_100	405A : 14	R61360
Conductivity	279	umhos/cm		1		A2510 B	04/05/10 17:36 / hm		MAN-TECH_100	405A : 13	R61360
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/07/10 15:51 / hm	04/07/10 14:42 J-	124 (14410200) 10		8426
Solids, Total Dissolved TDS @ 180 C	196	mg/L		10		A2540 C	04/07/10 15:06 / hm	04/07/10 14:38 J	124 (14410200)_10	0407B : 5	8424
INORGANICS							•				
Alkalinity, Total as CaCO3	78	mg/L		1		A2320 B	04/05/10 17:36 / hm		MAN-TECH 100	405A : 12	R61360
Bicarbonate as HCO3	95	mg/L		1		A2320 B	04/05/10 17:36 / hm		MAN-TECH 100		R61360
Chloride	4	mg/L		1		E300.0	04/06/10 22:46 / hm		IC101-H 1004	05A : 124	R61386
Sulfate	53	mg/L		1		E300.0	04/06/10 22:46 / hm		IC101-H_1004	05A : 124	R61386
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Antimony	ND	mg/L		0.003		E200.8	04/06/10 19:19 / dck		ICPMS204-B 100		R61389
Arsenic	ND	mg/L		0.002		E200.8	04/06/10 19:19 / dck		ICPMS204-B 100		R61389
Barium	ND	mg/L		0.1		E200.8	04/06/10 19:19 / dck		ICPMS204-B 100	406A : 61	R61389
Beryllium	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Cadmium	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100		R61389
Calcium	29	mg/L		1		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
Chromium	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Cobalt	ND	mg/L		0.01		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Copper	0.018	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100		R61389
Gold	ND	mg/L		0.01		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
Iron	ND	mg/L		0.02		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
Lead	ND	mg/L		0.005		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Magnesium	7	mg/L		1		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
Manganese	ND	mg/L		0.01		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Mercury	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Nickel	ND	mg/L		0.01		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389
Potassium	2	mg/L		1		E200.7	04/06/10 13:17 / sld		ICP1-HE_100	406A : 53	R61387
Selenium	ND	mg/L		0.001		E200.8	04/14/10 02:34 / dck		ICPMS204-B_100	414A : 19	R61581
Silver	ND	mg/L		0.005		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100	406A : 61	R61389

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID EHR-0410-301

Collection Date: 04/02/10 09:00 DateReceived: 04/02/10

Lab ID:

H10040032-002

Report Date: 04/15/10

Matrix:

Aqueous

Analyses	Resu	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED	-										
Sodium	13	mg/L		1		E200.7	04/06/10 13:17 / sld		ICP1-HE_100406	A:53	R61387
Tellurium	ND.	mg/L		0.1		E200.7	04/07/10 16:47 / sld		ICP1-HE_100407	B : 16	R61433
Thallium	ND	mg/L		0.001		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100406	A : 61	R61389
Vanadium	ND	mg/L		0.01		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100406	SA : 61	R61389
Zinc	ND	mg/L		0.01		E200.8	04/06/10 19:19 / dck		ICPMS204-B_100406	A : 61	R61389

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-302

H10040032-003

Lab ID: Matrix:

Aqueous

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Collection Date: 04/02/10 09:20 Dat

DateReceived: 04/02/10

Report Date: 04/15/10

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES									•	*	
pH	7.8	s.u.		0.1		A4500-H B	04/05/10 18:00 / hm		MAN-TECH_100	405A : 19	R61360
Conductivity	277	umhos/cm		1		A2510 B	04/05/10 18:00 / hm		MAN-TECH_100	405A : 18	R61360
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/07/10 15:20 / hm	04/07/10 14:42 J	-124 (14410200)_10	00407A:7	8426
Solids, Total Dissolved TDS @ 180 C	195	mg/L		10		A2540 C	04/07/10 15:07 / hm	04/07/10 14:38 J	-124 (14410200)_10	00407B:7	8424
INORGANICS			•								
Alkalinity, Total as CaCO3	78	mg/L		1		A2320 B	04/05/10 18:00 / hm		MAN-TECH_100	405A : 17	R61360
Bicarbonate as HCO3	95	mg/L		1		A2320 B	04/05/10 18:00 / hm		MAN-TECH_100	405A : 17	R61360
Chloride	4	mg/L		1		E300.0	04/06/10 23:35 / hm		IC101-H_1004	05A : 127	R61386
Sulfate	53	mg/L		1		E300.0	04/06/10 23:35 / hm		IC101-H_1004	05A : 127	R61386
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	1406A : 62	R61389
Antimony	ND	mg/L		0.003		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	406A:62	R61389
Arsenic	ND	mg/L		0.002		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	1406A : 62	R61389
Barium	ND	mg/L		0.1		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	1406A : 62	R61389
Beryllium	ND	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	406A : 62	R61389
Cadmium	ND	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	1406A : 62	R61389
Calcium	29	mg/L		1		E200.7	04/06/10 13:20 / sld		ICP1-HE_100		R61387
Chromium	ND	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	406A:62	R61389
Cobalt	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	1406A:62	R61389
Copper	0.018	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	406A:62	R61389
Gold	ND	mg/L		0.01		E200.7	04/06/10 13:20 / sld		ICP1-HE_100	406A : 54	R61387
fron	ND	mg/L		0.02		E200.7	04/06/10 13:20 / sld		ICP1-HE_100	1406A : 54	R61387
Lead	ND	mg/L		0.005		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	1406A:62	R61389
Magnesium	7	mg/L		1		E200.7	04/06/10 13:20 / sld		ICP1-HE_100		R61387
Manganese	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck	•	ICPMS204-B_100	1406A : 62	R61389
Mercury	ND	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100		R61389
Nickel	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100		R61389
Potassium	2	mg/L		1		E200.7	04/06/10 13:20 / sld		ICP1-HE_100		R61387
Selenium	ND	mg/L		0.001		E200.8	04/14/10 02:55 / dck		ICPMS204-B_100		R61581
Silver	ND	mg/L		0.005		E200.8	04/06/10 19:24 / dck		ICPMS204-B_100	1406A : 62	R61389

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Lab ID:

Client Sample ID EHR-0410-302

Collection Date: 04/02/10 09:20

DateReceived: 04/02/10

H10040032-003 Matrix: Aqueous

Report Date: 04/15/10

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
METALS, DISSOLVED									<u> </u>		
Sodium	13	mg/L		1		E200.7	04/06/10 13:20 / sld		ICP1-HE 10040	6A : 54	R61387
Tellurium	ND	mg/L		0.1		E200.7	04/07/10 16:50 / sld		ICP1-HE_10040	7B : 17	R61433
Thallium	ND	mg/L		0.001		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10040	6A : 62	R61389
Vanadium	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10040	6A:62	R61389
Zinc	ND	mg/L		0.01		E200.8	04/06/10 19:24 / dck		ICPMS204-B_10040	6A : 62	R61389

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-303

Lab ID:

H10040032-004

Matrix:

Aqueous

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Collection Date: 04/02/10 11:00

DateReceived: 04/02/10

Report Date: 04/15/10

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
PHYSICAL PROPERTIES											
рН	7.8	s₃u.		0.1		A4500-H B	04/05/10 18:07 / hm		MAN-TECH_100	405A : 22	R61360
Conductivity	474	umhos/cm		1		A2510 B	04/05/10 18:07 / hm		MAN-TECH_100	405A : 21	R61360
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/07/10 15:20 / hm	04/07/10 14:42 J	124 (14410200)_10	0407A : 9	8426
Solids, Total Dissolved TDS @ 180 C	347	mg/L		10		A2540 C	04/07/10 15:08 / hm	04/07/10 14:38 J	124 (14410200)_10	0407B : 9	8424
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	04/05/10 18:07 / hm		MAN-TECH_100	405A : 20	R61360
Bicarbonate as HCO3	140	mg/L		1		A2320 B	04/05/10 18:07 / hm		MAN-TECH_100		R61360
Chloride	7	mg/L		1		E300.0	04/06/10 23:52 / hm		IC101-H_1004		R61386
Sulfate	120	mg/L		1		E300.0	04/06/10 23:52 / hm		IC101-H_1004	05A : 128	R61386
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/06/10 19:29 / dck		ICPMS204-B, 100	406A : 63	R61389
Antimony	ND	mg/L		0.003		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Arsenic	ND	mg/L		0.002		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Barium	ND	mg/L		0.1		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Beryllium	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Cadmium	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Calcium	57	mg/L		1		E200.7	04/06/10 13:23 / sld		ICP1-HE_100	406A : 55	R61387
Chromium	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Cobalt	ND	mg/L		0.01		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Copper	0.002	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Gold	ND	mg/L		0.01		E200.7	04/06/10 13:23 / sld		ICP1-HE_100	406A : 55	R61387
Iron	ND	mg/L		0.02		E200.7	04/06/10 13:23 / sld		ICP1-HE_100	406A : 55	R61387
Lead	ND	mg/L		0.005		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A:63	R61389
Magnesium	12	mg/L		1		E200.7	04/06/10 13:23 / sld		ICP1-HE_100	406A : 55	R61387
Manganese	ND	mg/L		0.01		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Mercury	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Nickel	ND	mg/L		0.01		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389
Potassium	5	mg/L		1		E200.7	04/06/10 13:23 / sld		ICP1-HE_100	406A : 55	R61387
Selenium	0.003	mg/L		0.001		E200.8	04/14/10 03:00 / dck		ICPMS204-B_100	414A : 24	R61581
Silver	, ND	mg/L		0.005		E200.8	04/06/10 19:29 / dck		ICPMS204-B_100	406A : 63	R61389

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010 Collection Date: 04/02/10 11:00

Client Sample ID EHR-0410-303

H10040032-004

DateReceived: 04/02/10

Lab ID: Matrix:

Aqueous

Report Date: 04/15/10

Analyses	Resul	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED	(Max 484) (1) 4 - 11 - 1								,		
Sodium	17	mg/L		1		E200.7	04/06/10 13:23 / sld		ICP1-HE_1004	106A : 55	R61387
Tellurium	ND	mg/L		0.1		E200.7	04/07/10 16:53 / sld		ICP1-HE_1004	107B : 18	R61433
Thallium	ND	mg/L		0.001		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	106A : 63	R61389
Vanadium	ND	mg/L		0.01		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	106A : 63	R61389
Zinc	0.02	mg/L		0.01		E200.8	04/06/10 19:29 / dck		ICPMS204-B_1004	106A : 63	R61389

Client:

Montana Environmental Custodial Trust

Client Sample ID EHR-0410-304

Lab ID:

H10040032-005

Matrix:

Aqueous

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Collection Date: 04/02/10 11:30

DateReceived: 04/02/10

Report Date: 04/15/10

Analyses	Result	Units	Qualifiers	RĻL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES							,				
рН	5.4	s.u.		0.1		A4500-H B	04/05/10 18:12 / hm		MAN-TECH_100	0405A : 25	R61360
Conductivity	ND	umhos/cm		1		A2510 B	04/05/10 18:12 / hm		MAN-TECH_100	0405A : 24	R61360
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/07/10 15:21 / hm	04/07/10 14:42 -	124 (14410200)_10	0407A : 10	8426
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	04/07/10 15:08 / hm		124 (14410200)_10		8424
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		1		A2320 B	04/05/10 18:12 / hm		MAN-TECH 100	0405A : 23	R61360
Bicarbonate as HCO3	ND	mg/L		1		A2320 B	04/05/10 18:12 / hm		MAN-TECH_100		R61360
Chloride	ND	mg/L		1		E300.0	04/07/10 00:08 / hm		IC101-H 1004		R61386
Sulfate	ND	mg/L		1		E300.0	04/07/10 00:08·/ hm		IC101-H_1004		R61386
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.1		E200.8	04/07/10 09:48 / dck		ICPMS204-B 100	1406A:79	R61389
Antimony	ND	mg/L		0.003		E200.8	04/07/10 09:48 / dck		ICPMS204-B 100		R61389
Arsenic	ND	mg/L		0.002		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100		R61389
Barium	ND	mg/L		0.1		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100		R61389
Beryllium	ND	mg/L		0.001		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100		R61389
Cadmium	ND	mg/L		0.001		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100	1406A : 79	R61389
Calcium	ND	mg/L		1		E200.7	04/06/10 13:26 / sld		ICP1-HE 100	1406A : 56	R61387
Chromium	ND	mg/L		0.001		E200.8	04/07/10 09:48 / dck		ICPMS204-B 100	1406A : 79	R61389
Cobalt	ND	mg/L		0.0:1		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100	0406A : 79	R61389
Copper	ND	mg/L		0.001		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100)406A : 79	R61389
Gold	ND	mg/L		0.01		E200.7	04/06/10 13:26 / sld		ICP1-HE_100		R61387
Iron	ND	mg/L		0.02		E200.7	04/06/10 13:26 / sld		ICP1-HE_100	0406A : 56	R61387
Lead	ND	mg/L		0.005		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100	1406A:79	R61389
Magnesium	ND	mg/L		1		E200.7	04/06/10 13:26 / sld		ICP1-HE_100	1406A : 56	R61387
Manganese	ND	mg/L		0.01		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100		R61389
Mercury	ND	mg/L		0.001		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100	0406A : 79	R61389
Nickel	ND	mg/L		0.01		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100	1406A : 79	R61389
Potassium	ND	mg/L		1		E200.7	04/06/10 13:26 / sld		ICP1-HE_100		R61387
Selenium	ND .	mg/L		0.001		E200.8	04/08/10 19:28 / dck		ICPMS204-B_100	1408A : 88	R61467
Silver	ND	mg/L		0.005		E200.8	04/07/10 09:48 / dck		ICPMS204-B_100		R61389

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client:

Montana Environmental Custodial Trust

Project: Long-Term RI/FS Residential Well Sampling-Apr 2010

Client Sample ID EHR-0410-304

H10040032-005

Collection Date: 04/02/10 11:30 DateReceived: 04/02/10

Lab ID: Matrix:

Aqueous

Report Date: 04/15/10

Analyses	Resul	t Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RuniD	Run Order	BatchID
METALS, DISSOLVED											
Sodium	ND	mg/L		1		E200.7	04/06/10 13:26 / sld		ICP1-HE_10040	06A : 56	R61387
Tellurium	ND	mg/L		0.1		E200.7	04/07/10 16:56 / sld		ICP1-HE_10040)7B : 19	R61433
Thallium	ND	mg/L		0.001		E200.8	04/07/10 09:48 / dck		ICPMS204-B_10040	06A:79	R61389
Vanadium	ND	mg/L		0.01		E200.8	04/07/10 09:48 / dck		ICPMS204-B_10040	06A:79	R61389
Zinc	ND	mg/L		0.01		E200.8	04/07/10 09:48 / dck		ICPMS204-B_10040	06A:79	R61389



Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT Client:

Work Order: H10040032

BatchID: 8424

Run ID :Run Order:	ACCU-124 (14410200)	100407B: 1	SampType:	Method Blank	(Sample	D: MB-8424		Method	: A2540 C	
Analysis Date: 04/0	7/10 15:04	Units:	mg/L			Prep Info	Prep Da	ite: 4/7/2010		Prep Method	: A2540 C	
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolv	ed TDS @ 180 C	1	1									
Associated samples:	H10040032-001A; H10	040032-002/	A; H10040032-	·003A; H1004	0032-004A; H100	40032-005A						
Run ID :Run Order:	ACCU-124 (14410200)_	100407B: 2	SampType:	Laboratory C	ontrol Sample		Sample	ID: LCS-842	4	Method	: A2540 C	
Analysis Date: 04/0	7/10 15:05	Units:	mg/L			Prep Info:	Prep Da	ite: 4/7/2010		Prep Method	l: A2540 C	
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolv	ed TDS @ 180 C	2020	10	2000	1	101	90	110				
Associated samples:	H10040032-001A; H10	040032-002/	A; H10040032-	003A; H1004	0032-004A; H100	40032-005A						
Run ID :Run Order:	ACCU-124 (14410200)_	100407B: 6	SampType:	Sample Matri	x Spike		Sample	ID: H10040 0	32-002AMS	Method	: A2540 C	
Analysis Date: 04/0	7/10 15:06	Units:	mg/L			Prep Info:	Prep Da	ate: 4/7/2010		Prep Method	: A2540 C	
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolv	ed TDS @ 180 C	2160	10	2000	196	98	80	120				
Associated samples:	H10040032-001A; H10	040032-002/	A; H10040032-	003A; H1004	0032-004A; H100	40032-005A						
Run ID :Run Order:	ACCU-124 (14410200)_	100407B: 8	SampType:	Sample Dupli	cate		Sample	ID: H10040 0	32-003ADUP	Method	i: A2540 C	
Analysis Date: 04/0	7/10 15:07	Units:	mg/L			Prep Info	Prep Da	ate: 4/7/2010		Prep Method	i: A2540 C	
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolv	ed TDS @ 180 C	193	10						195	1	5	
Associated samples:	H10040032-001A; H10	040032-002	A; H10040032-	·003A; H1004	0032-004A; H100	40032-005A						
Run ID :Run Order:	ACCU-124 (14410200)_	100407B: 12	SampType:	Sample Matri	x Spike		Sample	ID: H10040 0	44-001AMS	Method	i: A2540 C	
Analysis Date: 04/0	7/10 15:09	Units:	mg/L			Prep Info	: Prep Da	ate: 4/7/2010		Prep Method	i: A2540 C	
Analytes <u>1</u>		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

ND - Not Detected at the Reporting Limit Qualiflers:

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

Date: 15-Apr-10

J - Analyte detected below quantitation limits

R - RPD outside accepted requyery limits

A.- Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Date: 15-Apr-10

Work Order:

Project:

H10040032

Long-Term RI/FS Residential Well Samplin

BatchID: 8426

Run ID :Run Order: ACCU-124 (14410200)_100407A: 1

SampType: Method Blank

Sample ID: MB-8426

Method: A2540 D

Analysis Date: 04/07/10 15:18

Units: mg/L

Prep Info:

Prep Date: 4/7/2010

Prep Method: A2540 D

Analytes 1

Result

SPK value SPK Ref Val

LowLimit HighLimit RPD Ref Val

Solids, Total Suspended TSS @ 105 C

ND

%REC

%RPD RPDLimit

Associated samples: H10040032-001A; H10040032-002A; H10040032-003A; H10040032-004A; H10040032-005A

Run ID :Run Order: ACCU-124 (14410200) 100407A: 2

SampType: Laboratory Control Sample

Sample ID: LCS-8426

Method: A2540 D

Prep Info: Prep Date: 4/7/2010

Analysis Date: 04/07/10 15:18 Analytes 1

Units: ma/L

SPK value

Prep Method: A2540 D

PQL

SPK Ref Val

%REC

LowLimit HighLimit RPD Ref Val

%RPD RPDLimit

Result

130

Solids, Total Suspended TSS @ 105 C

1680

10 2000 84

70

Associated samples: H10040032-001A; H10040032-002A; H10040032-003A; H10040032-004A; H10040032-005A

PQL

Run ID :Run Order: ACCU-124 (14410200) 100407A: 8

SampType: Sample Duplicate

Sample ID: H10040032-003ADUP

Method: A2540 D

Analysis Date: 04/07/10 15:20

Result

Prep Date: 4/7/2010 Prep Info:

Analytes 1

Units: ma/L

SPK value SPK Ref Val

Prep Method: A2540 D

%RPD RPDLimit Qual

Solids, Total Suspended TSS @ 105 C

1.00

10

%REC

LowLimit HighLimit RPD Ref Val

5

Associated samples: H10040032-001A; H10040032-002A; H10040032-003A; H10040032-004A; H10040032-005A

PQL



Client: Montan

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project: Long-Term RI/FS Residential Well Samplin

BatchID: R61360

Run ID :Run Order: MAN-TECH_100405A: 3		SampType:	Method Blank	•		Sample	ID: MBLK		Method	: A2320 B	
Analysis Date: 04/05/10 17:07	Units: m	g/L			Prep Info:	Prep Da	ite:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	ND	0.9									
Associated samples: H10040032-001A; H1004	10032-002A; I	H10040032	-003A; H1004	0032-004A; H100	40032-005A						
Run ID :Run Order: MAN-TECH_100405A: 5		SampType:	Laboratory C	ontrol Sample	,	Sample	ID: LCS		Method	: A2320 B	
Analysis Date: 04/05/10 17:16	Units: m	g/L		,	Prep Info:	Prep Da	ite:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Alkalinity, Total as CaCO3	590	4.0	600		98	90	110				
Associated samples: H10040032-001A; H1004	10032-002A; I	H10040032	-003A; H1004	0032-004A; H100	40032-005A						
Run ID :Run Order: MAN-TECH_100405A: 9		SampType:	Sample Dupli	cate		Sample	ID: H10040 0	32-001ADUP	Method	: A2320 B	
Analysis Date: 04/05/10 17:30	Units: m	g/L			Prep Info:	Prep Da	ite:		Prep Method	l:	
Analytes <u>2</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Alkalinity, Total as CaCO3	120	4.0			·			121.2	0.1	20	
Bicarbonate as HCO3	150	4.0						147.9	0.1	20	
Associated samples: H10040032-001A; H1004	10032-002A; I	H10040032-	-003A; H1004	0032-004A; H100	40032-005A			_			
Run ID :Run Order: MAN-TECH_100405A: 15		SampType:	Sample Matri	x Spike		Sample	ID: H10040 0	32-002AMS	Method	: A2320 B	
Analysis Date: 04/05/10 17:45	Units: m	g/L			Prep Info:	Prep Da	ite:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Alkalinity, Total as CaCO3	730	4.0	600	78.24	108	90	110				
Associated samples: H10040032-001A ; H1004	10032-002A; I	H10040032	-003A; H1004	0032-004A; H100	40032-005A						
Run ID :Run Order: MAN-TECH_100405A: 16		SampType:	Sample Matri	x Spike Duplicate		Sample	ID: H10040 0	32-002AMSD	Method	: A2320 B	
Analysis Date: 04/05/10 17:53	Units: m	g/L			Prep Info:	Prep Da	ite:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDĻimit	Qua
Alkalinity, Total as CaCO3	720	4.0	600	78.24	107	90	110	725	0.5	20	

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

Date: 15-Apr-10

J - Analyte detected below quantitation limits

R - RPD outside accepted eqquery limits

A - Analyte concentration greater than three times the spike amount



Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT Client:

Work Order:

Project:

H10040032

Long-Term RI/FS Residential Well Samplin

BatchID: R61360

Method: A2510 B Run ID :Run Order: MAN-TECH 100405A: 1 SampType: Initial Calibration Verification Standard Sample ID: ICV Prep Method: Prep Date: Analysis Date: 04/05/10 16:58 Units: umhos/cm Prep Info: **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Result Analytes 1 100 90 Conductivity 716 1.0 717.5 110

Associated samples: H10040032-001A; H10040032-002A; H10040032-003A; H10040032-004A; H10040032-005A

Sample ID: LCS Method: A2510 B Run ID :Run Order: MAN-TECH 100405A: 4 SampType: Laboratory Control Sample Analysis Date: 04/05/10 17:09 Units: umhos/cm Prep Info: Prep Date: Prep Method: Result **PQL** SPK value %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit SPK Ref Val Qual Analytes 1 101 90 1420 1.0 1412 110 Conductivity

Associated samples: H10040032-001A; H10040032-002A; H10040032-003A; H10040032-005A

Sample ID: H10040032-001ADUP Method: A2510 B SampType: Sample Duplicate Run ID :Run Order: MAN-TECH 100405A: 10 Prep Method: Prep Date: Analysis Date: 04/05/10 17:30 Units: umhos/cm Prep Info: %RPD RPDLimit Analytes 1 Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val Qual 751 749.9 0.1 10 Conductivity 1.0

Associated samples: H10040032-001A; H10040032-002A; H10040032-003A; H10040032-004A; H10040032-005A

Date: 15-Apr-10



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order:

H10040032

Project:

Long-Term RI/FS Residential Well Samplin

BatchID: R61360

Run ID :Run Order: MAN-TECH_100405A: 2		SampType: I	initial Calibra	tion Verification S	Standard	Sample	ID: ICV		Method	: A4500-H E	3
Analysis Date: 04/05/10 17:01	Units: r	ng/L			Prep Info:	Prep Da	ite:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
рН	6.98	0.10	7		100	. 99	101				
Associated samples: H10040032-001A; H1004	0032-002A	H10040032-	003A; H1004	0032-004A; H100	40032-005A						
Run ID :Run Order: MAN-TECH_100405A: 11		SampType:	Sample Dupli	cate	,	Sample	ID: H10040 0	32-001 ADUP	Method	l: A4500-H E	}
Analysis Date: 04/05/10 17:30	Units: s	s.u.			Prep Info:	Prep Dą	ite:		Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
РН	7.69	0.10	,					7.68	0.1	2	
Associated samples: H10040032-001A ; H1004	0032-002A	H10040032-	003A; H1004	0032-004A; H100	40032-005A	••••••					
Run ID :Run Order: MAN-TECH_100405A: 39		SampType: 6	Continuing Ca	alibration Verifica	tion Standard	Sample	ID: CCV		Method	: A4500-H E	
Analysis Date: 04/05/10 18:52	Units: mg/L P			Prep Info:	Prep Da	ite:		Prep Method	:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hq	7.01	0.10	7		100	99	101				

Date: 15-Apr-10



Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT Client:

Work Order: H10040032

RatchID: R61386

Date: 15-Apr-10

Run ID :Run Order: IC101-H_100405A: 1		SampType:	Initial Calibra	tion Verification	Standard	Sample	D: ICV0405	10-12	Method: E3	0.00	
Analysis Date: 04/05/10 13:06	Units: mg	g/L			Prep Info:	: Prep Da	te:		Prep Method:		
Analytes <u>2</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RP	PDLimit	Qua
Chloride	12	1.0	12.5		94	90	110				
Sulfate	51	1.0	50		103	90	110				
Associated samples: H10040032-001A; H100)40032-002A; H	110040032-	003A; H1004	0032-004A; H100	040032-005A						
Run ID :Run Order: IC101-H_100405A: 2		SampType:	Method Blank	<u> </u>	-	Sample	D: ICB0405	10-13	Method: E3	00.0	
Analysis Date: 04/05/10 13:23	Units: mg	g/L			Prep Info:	: Prep Da	te:		Prep Method:		
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RF	PDLimit	Qua
Chloride	ND	0.05	,								
Sulfate	ND	0.1									
Associated samples: H10040032-001A; H100)40032-002A; H	110040032-	003A; H1004	0032-004A; H100	140032-005A						
Run ID :Run Order: IC101-H_100405A: 3		SampType:	Laboratory Fo	ortified Blank		Sample	D: LFB040 5	510-14	Method: E3	0.00	- A(1)
Analysis Date: 04/05/10 13:39	Units: m g	g/L			Prep Info:	: Prep Da	te:		Prep Method:		
Analytes <u>2</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RF	DLimit	Qua
Chloride	23	1.0	25		92	90	110				
Sulfate	49	1.0	50		99	90	110				
Associated samples: H10040032-001A; H100)40032-002A; F	110040032-	003A; H1004	0032-004A; H100	040032-005A						
Run ID :Run Order: IC101-H_100405A: 119	- ;	SampType:	Continuing C	alibration Verific	ation Standard	d Sample	D: CCV040	510-128	Method: E3	0.00	
Analysis Date: 04/06/10 21:24	Units: mg	g/L			Prep Info:	: Prep Da	te:		Prep Method:		
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC_	LowLimit	HighLimit	RPD Ref Val	%RPD RF	DLimit	Qua
Chloride	24	1.0	25		98	90	110				
	52	1.0	50		103	90	110				
Sulfate		140040022	003A: H1004	0032-004A; H100	40032-005A						
	040032-002A; i	110040032		SampType: Sample Matrix Spike					/IS Method: E300.0		
Sulfate Associated samples: H10040032-001A; H100 Run ID :Run Order: IC101-H_100405A: 125	· · · · · · · · · · · · · · · · · · ·			x Spike	70 A ANS NAMES OF	Sample	D: H100400	32-002AMS	Method: E3	0.00	
ssociated samples: H10040032-001A; H100	· · · · · · · · · · · · · · · · · · ·	SampType:		x Spike	Prep info:	'		32-002AMS	Method: E3 Prep Method:	0.00	
Run ID :Run Order: IC101-H_100405A: 125 Analysis Date: 04/06/10 23:02		SampType:		x Spike SPK Ref Val	Prep Info:	'	te:	32-002AMS RPD Ref Val			Qua
Run ID :Run Order: IC101-H_100405A: 125	Units: mg	SampType: :	Sample Matri	·	• •	Prep Da	te:		Prep Method:		Qua
Ssociated samples: H10040032-001A; H100 Run ID :Run Order: IC101-H_100405A: 125 Analysis Date: 04/06/10 23:02 Analytes 2	Units: m g Result	SampType: : g/L PQL	Sample Matri	SPK Ref Val	%REC	Prep Da	te: HighLimit		Prep Method:		Qui
Run ID :Run Order: IC101-H_100405A: 125 Analysis Date: 04/06/10 23:02 Analytes 2 Chloride	Units: mg Result 29 110	SampType: Start PQL 1.0	SPK value 25 50	SPK Ref Val	%REC 99 107	Prep Da LowLimit 90 90	te: HighLimit 110 110	RPD Ref Val	Prep Method:	DLimit	



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project: Long-Term RI/FS Residential Well Samplin

BatchID: R61386

Run ID :Run Order: IC101-H_100405A: 125 SampType: Sample Matrix Spike Sample ID: H10040032-002AMS Method: E300.0

Analysis Date: 04/06/10 23:02 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 2 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Associated samples: H10040032-001A; H10040032-002A; H10040032-003A; H10040032-004A; H10040032-005A

Run ID :Run Order: IC101-H_100405A: 126		SampType:	Sample Matri	x Spike Duplicate		Sample l	D: H100400	32-002AMSD	Method	i: E300.0	
Analysis Date: 04/06/10 23:19	Units: m	g/L			Prep Info:	Prep Da	te:		Prep Method	l :	
Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	29	1.0	25	4.42	98	90	110	29.25	0.9	20	
Sulfate	110	1.0	50	52.92	108	90	110	106.5	0.3	20	

Associated samples: H10040032-001A; H10040032-002A; H10040032-003A; H10040032-004A; H10040032-005A

Date: 15-Apr-10



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project:

Long-Term RI/FS Residential Well Samplin

BatchID: R61387

Run ID :Run Order: ICP1-HE_100406A: 5		SampType:	Initial Calibrat	tion Verification S	Standard	Sample I	D: ICV		Method	E200.7	
Analysis Date: 04/06/10 10:45	Units: n	ng/L			Prep Info:	Prep Da	te:		Prep Method	d:	
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	41.6	1.0	40		104	95	105				
Gold	1.94	0.10	2		97	95	105				
Iron	3.97	0.030	4		99	95	105				
Magnesium	39.8	1.0	40		99	95	105				
Potassium	38.6	1.0	40		96	95	105				
Sodium	41.1	1.0	40		103	95	105				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICP1-HE_100406A: 7	· · · · · · · · · · · · · · · · · · ·	SampType: Continuing Calibration Verification Standard Sample ID: CCV-1							Method: E200.7				
Analysis Date: 04/06/10 10:54	Units: n	ng/L			Prep Info	: Prep Da	te:		Prep Method	l:			
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Calcium	24.6	1.0	25		98	95	105						
Gold	2.42	0.10	2.5		97	95	105						
Iron	2.50	0.030	2.5		100	95	105						
Magnesium	24.6	1.0	25		98	95	105						
Potassium	24.6	1.0	25		99	95	105						
Sodium	25.7	1.0	25		103	95	105						

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICP1-HE_100406A: 10		SampType:	Interference (Check Sample A		Sample	ID: ICSA		Method	: E200.7	
Analysis Date: 04/06/10 11:04	Units: n	ng/L			Prep Info:	Prep Da	te:		Prep Method	l:	
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	451	1.0	500		90	80	120				
Gold	0.0207	0.10				0	0				
Iron	177	0.030	200		89	80	120				
Magnesium	518	1.0	500		104	80	120				
Potassium	0.0146	1.0				0	0				
Sodium	0.0421	1.0				0	0				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted equyery limits

A - Analyte concentration greater than three times the spike amount

Date: 15-Apr-10



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Date: 15-Apr-10

Work Order:

Project:

H10040032

Long-Term RI/FS Residential Well Samplin

BatchID: R61387

Run ID :Run Order: ICP1-HE_100406A: 11		SampType: Interference Check Sample AB				Sample I	ID: ICSAB	•	Method	: E200.7	
Analysis Date: 04/06/10 11:07	Units: n	ıg/L			Prep Info:	Prep Da	te:		Prep Method	:	
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	447	1.0	500		89	80	120				
Gold	0.977	0.10	1		98	80	120				
Iron	178	0.030	200		89	80	120				
Magnesium	529	1.0	500		106	80	120				
Potassium	20.2	1.0	20		101	80	120				
Sodium	20.5	1.0	20		103	80	120				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICP1-HE_100406A: 14	P1-HE_100406A: 14 SampType: Method Blank					Sample	ID: ICB		Method: E200.7			
Analysis Date: 04/06/10 11:17	Units: 1	ng/L			Prep Info	: Prep Da	ite:		Prep Method	l:		
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Calcium	ND	0.001										
Gold	ND	0.002										
Iron	ND	0.0003										
Magnesium	0.006	0.001										
Potassium	0.02	0.0002										
Sodium	0.02	0.01										

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICP1-HE_100406A: 15	O6A: 15 SampType: Laboratory Fortified Blank					Sample	D: LFB	•	Method	: E200.7	
Analysis Date: 04/06/10 11:20	Units: n	Units: mg/L			Prep Info:	Prep Da	te:		Prep Method	i:	
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	10.5	1.0	10		105	85	115				
Gold	0.506	0.10	0.5		101	85	115				
Iron	1.06	0.030	1		105	85	1 15				
Magnesium	10.4	1.0	10		104	85	115				
Potassium	9.94	1.0	10		99	85	115				
Sodium	10.4	1.0	10		104	85	115				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted eacyery limits

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project:

Long-Term RI/FS Residential Well Samplin

BatchID: R61387

Run ID :Run Order: ICP1-HE_100406A: 41		SampType: Laboratory Fortified Blank				Sample	ID: LFB		Method	: E200.7	
Analysis Date: 04/06/10 12:40	Units: m	ıg/L			Prep Info:	: Prep Da	ate:		Prep Method	l:	
Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gold	0.475	0.10	0.5		95	85	115				,
Iron	0.981	0.030	1		98	85	115				
Magnesium	9.93	1.0	10		99	85	115				
Potassium	10.0	1.0	10		100	85	115				
Sodium	10.5	1.0	10		105	85	115				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICP1-HE_100406A: 48	SampType: Continuing Calibration Verification Standard Sample ID: CCV								Method: E200.7			
Analysis Date: 04/06/10 13:02	Units: m	ng/L			Prep Info:	: Prep Da	te:		Prep Method	l:		
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Calcium	24.2	1.0	25		97	90	110		7			
Gold	2.34	0.10	2.5		94	90	110					
Iron	2.39	0.030	2.5		96	90	110					
Magnesium	24.1	1.0	25		96	90	110					
Potassium	24.2	1.0	25		97	90	110					
Sodium	25.5	1.0	25		102	90	110					

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICP1-HE_100406A: 57 SampType: Sample Matrix Spike						Sample	ID: H10040 0	032-005BMS2 Method: E200.7			
Analysis Date: 04/06/10 13:29	Units: n	ıg/L			Prep Info:	: Prep Da	ite:		Prep Method	l:	
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	20.3	1.0	20	0.1743	101	70	130				
Gold	0.948	0.010	1		95	70	130				
Iron	2.02	0.030	2		101	70	130				
Magnesium	19.7	1.0	20	0.0323	98	70	130				
Potassium	19.9	1.0	20		100	70	130				
Sodium	20.1	1.0	20	0.1319	100	70	130				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Date: 15-Apr-10

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project:

Long-Term RI/FS Residential Well Samplin

BatchID: R61387

Run ID :Run Order: ICP1-HE_100406A: 58			Sample I	32-005BMSD2	Method: E200.7						
Analysis Date: 04/06/10 13:32	Units: r	ng/L			Prep Info:	Prep Da	te:		Prep Method	l:	
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	20.0	1.0	20	0.1743	99	70	130	20.3	1.5	20	
Gold	0.915	0.010	1		92	70	130	0.948	3.5	20	
Iron	1.94	0.030	2		97	70	130	2.022	4.1	20	
Magnesium	19.4	1.0	20	0.0323	97	70	130	19.7	1.7	20	
Potassium	20.0	1.0	20		100	70	130	19.94	0.4	20	
Sodium	20.2	1.0	20	0.1319	100	70	130	20.14	0.1	20	

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICP1-HE_100406A: 77		SampType:	Laboratory Fo	ortified Blank		Sample	ID: LFB		Method: E200.7		
Analysis Date: 04/06/10 14:32	Units: n	ng/L			Prep Info:	: Prep Da	ite:		Prep Method	i:	
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	9.78	1.0	10		98	85	115	(3			,
Gold	0.444	0.10	0.5		89	85	115				
Iron	0.935	0.030	1		94	85	115				
Magnesium	9.35	1.0	10		94	85	115				
Potassium	9.81	1.0	10		98	85	115				
Sodium	10.1	1.0	10		101	85	115				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICP1-HE_100406A: 89		SampType: I	Interference (Check Sample A		Sample	ID: ICSA		Method	: E200.7	
Analysis Date: 04/06/10 15:09	Units: r	ng/L			Prep Info:	: Prep Da	ite:		Prep Method	l:	
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	442	1.0	500		88	80	120		,		
Gold	0.0213	0.10				0	0				
Iron	176	0.030	200		88	80	120				
Magnesium	533	1.0	500		107	80	120				
Potassium	0.0187	1.0				0	0				
Sodium	0.0497	1.0				0	0				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

Date: 15-Apr-10

J - Analyte detected below quantitation limits

R - RPD outside accepted regovery limits



Client:

Project:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10

H10040032

Long-Term RI/FS Residential Well Samplin

BatchID: R61387

Run ID :Run Order: ICP1-HE_100406A: 90	,	SampType: Interference Check Sample AB				Sample	ID: ICSAB		Method	: E200.7	
Analysis Date: 04/06/10 15:12	Units: n	ng/L			Prep Info:	Prep Da	ate:		Prep Method	i:	
Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	504	1.0	500		101	80	120	-			
Gold	0.992	0.10	1		99	80	120				
Iron	185	0.030	200		92	80	120				
Magnesium	549	1.0	500		110	80	120				
Potassium	20.0	1.0	20		100	80	120				
Sodium	21.1	1.0	20		106	80	120				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project: Long-Term RI/FS Residential Well Samplin

BatchID: R61389

Run ID :Run Order: ICPMS204-B_100406A: 8		SampType:	Initial Calibra	tion Verification S	standard	Sample I	D: QCS STI	D	Method	: E200.8	
Analysis Date: 04/06/10 14:42	Units:	mg/L			Prep Info:	Prep Da	te:		Prep Method	l :	
Analytes <u>17</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.255	0.10	0.25		102	90	110				
Antimony	0.0503	0.050	0.05		101	90	110				
Arsenic	0.0489	0.0050	0.05		98	90	110				
Barium	0.0508	0.10	0.05		102	90	110				
Beryllium	0.0256	0.0010	0.025		102	90	110				
Cadmium	0.0260	0.0010	0.025		104	90	110				
Chromium	0.0495	0.010	0.05		99	90	110				
Cobalt	0.0505	0.010	0.05		101	90	110				
Copper	0.0506	0.010	0.05		101	90	110				
Lead	0.0497	0.010	0.05		99	90	110				
Manganese	0.252	0.010	0.25		101	90	110				
Mercury	0.00197	0.0010	0.002		99	90	110				
Nickel	0.0496	0.010	0.05		99	90	110				
Silver	0.0266	0.0050	0.025		106	90	110				
Thallium	0.0499	0.10	0.05		100	90	110				
Vanadium	0.0490	0.10	0.05		98	90	110				
Zinc	0.0507	0.010	0.05		101	90	110				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICPMS204-B_10	0406A: 9	SampType:	Interference (Check Sample A	•	Sample	D: ICSA		Method	i: E200.8	
Analysis Date: 04/06/10 14:47	Units: r	ng/L			Prep Info:	Prep Da	te:		Prep Method	i :	
Analytes <u>17</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.8	0.10	40		105	70	130				
Antimony	0.000406	0.050									
Arsenic	0.000237	0.0050									
Barium	-0.000425	0.10									
Beryllium	7.00E-06	0.00:10									
Cadmium	0.000776	0.0010									
Chromium	0.000823	0.010									
Cobalt	0.00177	0.010									
Copper	0.00343	0.010									
Lead	0.000119	0.010									
Manganese	0.00226	0.0:10									

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project:

Long-Term RI/FS Residential Well Samplin

BatchID: R61389

Run ID :Run Order: ICPMS204-B_100	0406A: 9	SampType:	Interference C	Check Sample A		Sample I	ID: ICSA		Method	: E200.8	
Analysis Date: 04/06/10 14:47	Units: r	ng/L			Prep Info:	Prep Da	ite:		Prep Method	i:	
Analytes <u>17</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.80E-05	0.0010									
Nickel	0.00158	0.010									
Silver	0.000217	0.0050							•		
Tihallium	4.90E-05	0.10									
Vanadium	7.80E-05	0.10									
Zinc	0.00204	0.010									

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICPMS204-B_1	00406A: 10	SampType:	Interference C	heck Sample AB		Sample	ID: ICSAB		Method	: E200.8	
Analysis Date: 04/06/10 14:53	Units:	mg/L			Prep Info:	Prep Da	ite:		Prep Method	l :	
Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.2	0.10	40		106	70	130				
Antimony	0.000202	0.050				0	0				
Arsenic	0.0110	0.0050	0.01		109	70	130				
Barium	-0.000403	0.10				0	0				
Beryllium	2.00E-06	0.0010				0	0				
Cadmium	0.0111	0.0010	0.01		110	70	130				
Chromium	0.0217	0.010	0.02		108	70	130				
Cobalt	0.0231	0.010	0.02		115	70	130	4			
Copper	0.0234	0.010	0.02		117	70	130				
Lead	9.70E-05	0.010				0	0				
Manganese	0.0239	0.010	0.02		119	70	130				
Mercury	9.00E-06	0.0010				0	0				
Nickel	0.0229	0.010	0.02		114	70	130				
Silver	0.0180	0.0050	0.02		90	70	130				
Thallium	1.60E-05	0.10			,	0	0				
Vanadium	0.0211	0.10	0.02		105	70	130				
Zinc	0.0130	0.010	0.01		129	70	130				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project: Long-Term RI/FS Residential Well Samplin

BatchID: R61389

Run ID :Run Order: ICPMS204-B_1004	106A: 16	SampType:	Method Blank			Sample	ID: ICB		Method	: E200.8	
Analysis Date: 04/06/10 15:24	Units:	mg/L			Prep Info:	Prep Da	ate:		Prep Method	i:	
Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0002						,			·
Antimony	2E-05	1E-05									
Arsenic	ND	5E-05									
Barium	ND	2E-05									
Beryllium	ND	1E-05									
Cadmium	ND	1E-05									
Chromium	ND	5E-05									
Cobalt	ND	1E-05									
Copper	ND	4E-05									
Lead	ND	1E-05									
Manganese	8E-05	2E-05									
Mercury	ND	5E-06									
Nickel	ND	5E-05									
Silver	0.0004	2E-05					•				
Thallium	ND	2E-05									
Vanadium	ND	3E-05									
Zinc	0.002	0.0004									

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICPMS204-B_1004	106A: 17	SampType:	Laboratory Fo	ortified Blank		Sample I	D: LFB		Method	i: E200.8	
Analysis Date: 04/06/10 15:29	Units: 1	ng/L			Prep Info:	Prep Da	te:		Prep Method	d:	
Analytes 17	Result	PQL	SPK value	SPK Ref Val	. %REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0505	0.10	0.05		101	85	115	-			
Antimony	0.0500	0.050	0.05	0.0000245	100	85	115				
Arsenic	0.0487	0.0050	0.05		97	85	115				
Barium	0.0506	0.10	0.05		101	85	115				
Beryllium	0.0504	0.0010	0.05		101	85	115				
Cadmium	0.0495	0.00:10	0.05		99	85	115				
Chromium	0.0497	0.010	0.05		99	85	115				
Cobalt	0.0496	0.010	0.05		99	85	115				
Copper	0.0482	0.010	0.05		96	85	115				
Lead	0.0503	0.010	0.05		101	85	115				
Manganese	0.0506	0.010	0.05	0.0000804	101	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted regovery limits

A - Analyte concentration greater than three times the spike amount



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project: Long-Term RI/FS Residential Well Samplin

BatchID: R61389

Run ID :Run Order: ICPMS204-B_100	ID :Run Order: ICPMS204-B_100406A: 17 SampType: Laboratory Fortified Bia					ank Sample ID: LFB				Method: E200.8		
Analysis Date: 04/06/10 15:29	Units: 1	ng/L			Prep Info:	Prep Da	te:		Prep Method:			
Analytes <u>17</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Mercury	0.000922	0.0010	0.001		92	85	115					
Nickel	0.0493	0.010	0.05		99	85	115					
Silver	0.0193	0.0050	0.02	0.0003821	94	85	115					
Thallium	0.0506	0.10	0.05		101	85	115					
Vanadium	0.0496	0.10	0.05		99	85	115		•			
Zinc	0.0508	0.010	0.05	0.001725	98	85	115					

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICPMS204-B_100)406A: 55	SampType:	Sample Matrix	x Spike		Sample	D: H100303	77-001BMS	Method	: E200.8	,
Analysis Date: 04/06/10 18:48	Units:	mg/L			Prep Info:	Prep Da	te:		Prep Method	j :	
Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0518	0.10	0.05	0.001555	101	70	130				
Antimony	0.0512	0.0030	0.05	0.0001415	102	70	130				
Arsenic	0.0512	0.0010	0.05	0.002229	98	70	130				
Barium	0.141	0.10	0.05	0.09326	96	70	130				
Beryllium	0.0514	0.0010	0.05		103	70	130				
Cadmium	0.0488	0.0010	0.05		98	70	130				
Chromium	0.0499	0.010	0.05	0.001681	96	70	130				
Cobalt	0.0477	0.010	0.05	0.0001325	95	70	130				
Copper	0.0651	0.010	0.05	0.02007	90	70	130				
Lead	0.0516	0.0010	0.05	0.001956	99	70	130				
Manganese	0.0505	0.010	0.05	0.0004121	100	70	130				
Mercury	0.000920	0.00020	0.001	0.0000116	91	70	130				
Nickel	0.0475	0.010	0.05	0.0000877	95	70	130				
Silver	0.0171	0.0050	0.02		85	70	130				
Thallium	0.0497	0.0010	0.05		99	70	130				
Vanadium	0.0503	0.10	0.05	0.002013	97	70	130				
Zinc	0.0961	0.010	0.05	0.05085	91	70	130				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project: Long-Term RI/FS Residential Well Samplin

BatchID: R61389

Run ID :Run Order: ICPMS204-B_100)406A: 56	SampType:	Sample Matrix	x Spike Duplicate		Sample I	D: H100303	77-001BMSD	Method	: E200. 8	
Analysis Date: 04/06/10 18:53	Units:	mg/L			Prep Info:	Prep Da	te:		Prep Method	d:	
Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0518	0.10	0.05	0.001555	101	70	130	0.05182		20	
Antimony	0.0510	0.0030	0.05	0.0001415	102	70	130	0.05116	0.4	20	
Arsenic	0.0513	0.0010	0.05	0.002229	98	70	130	0.05118	0.3	20	
Barium	0.140	0.10	0.05	0.09326	94	70	130	0.1411	0.5	20	
Beryllium	0.0510	0.0010	0.05		102	70	130	0.05136	0.7	20	
Cadmium	0.0489	0.0010	0.05		98	70	130	0.04879	0.2	20	
Chromium	0.0499	0.010	0.05	0.001681	96	70	130	0.04985	0	20	•
Cobalt	0.0476	0.010	0.05	0.0001325	95	70	130	0.04772	0.2	20	
Copper	0.0663	0.010	0.05	0.02007	93	70	130	0.06506	1.9	20	
Lead	0.0509	0.0010	0.05	0.001956	98	70	130	0.05162	1.5	20	
Manganese	0.0506	0.010	0.05	0.0004121	100	70	130	0.05046	0.2	20	
Mercury	0,000925	0.00020	0.001	0.0000116	91	70	130	0.00092	0.5	20	
Nickel	0.0474	0.010	0.05	0.0000877	95	70	130	0.04749	0.3	20	
Silver	0.0182	0.0050	0.02		91	70	130	0.01705	6.3	20	
Thallium	0.0488	0.0010	0.05		98	70	130	0.0497	1.8	20	
Vanadium	0.0511	0.10	0.05	0.002013	98	70	130	0.05033		20	
Zinc	0.0976	0.010	0.05	0.05085	94	70	130	0.09611	1.6	20	

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICPMS204-B_10	0406A: 70	SampType:	SampType: Interference Check Sample A			Sample ID: ICSA				Method: E200.8		
Analysis Date: 04/07/10 09:02	Units:	Units: mg/L Prep Info: Prep Date:		te:		Prep Method	i:					
Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aluminum	42.6	0.10	40		106	70 ⁻	130					
Antimony	0.000206	0.050										
Arsenic	0.000209	0.0050										
Barium	-0.000421	0.10										
Beryllium	4.00E-06	0.0010										
Cadmium	0.000583	0.0010										
Chromium	0.000710	0.010										
Cobalt	0.00173	0.010										
Copper	0.00261	0.010										
Lead	6.60E-05	0.010										
Manganese	0.00259	0.010										

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT Client:

Work Order: H10040032

Project: Long-Term RI/FS Residential Well Samplin

BatchID: R61389

Run ID :Run Order: ICPMS204-B_100)406A: 70	SampType:	Interference (Check Sample A		Sample	ID: ICSA		Method: E200.8		
Analysis Date: 04/07/10 09:02	Units:	mg/L			Prep Info	: Prep Da	ite:		Prep Method	i :	
Analytes <u>17</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.10E-05	0.0010									
Nickel	0.00118	0.010									
Silver	5.20E-05	0.0050									
Thallium	6.00E-06	0.10									
Vanadium	0.000187	0.10									
Zinc	0.00196	0.010									

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICPMS204-B_100406A: 73		SampType:	Interference Ch	eck Sample AB		Sample	D: ICSAB		Method	E200.8	
Analysis Date: 04/07/10 09:17	Units:	mg/L			Prep Info:	Prep Da	te:		Prep Method	l :	
Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.8	0.10	40		104	70	130				
Antimony	0.000187	0.050				0	0				
Arsenic	0.0107	0.0050	0.01		107	70	130				
Barium	-0.000151	0.10				0	0				
Beryllium	4.00E-06	0.0010				0	0				
Cadmium	0.0108	0.0010	0.01		108	70	130				
Chromium	0.0212	0.010	0.02		106	70	130				
Cobalt	0.0223	0.010	0.02		111	70	130				
Copper	0.0230	0.010	0.02		115	70	130				
Lead	4.80E-05	0.010				0	0				
Manganese	0.0243	0.010	0.02		121	70	130				
Mercury	9.00E-06	0.0010				0	0				
Nickel	0.0218	0.010	0.02		109	70	130				
Silver	0.0183	0.0050	0.02		92	70	130				
Thallium	5.00E-06	0.10		•		0	0				
Vanadium	0.0210	0.10	0.02		105	70	130				
Zinc	0.0123	0.010	0.01		123	70	130				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

Date: 15-Apr-10

J - Analyte detected below quantitation limits

R - RPD outside accepted except limits



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project: Long-Term RI/FS Residential Well Samplin

BatchID: R61389

Run ID :Run Order: ICPMS204-B_1004	106A: 80	SampType:	Sample Matrix	k Spike	•	Sample	ID: H10040 0	32-005BMS	Method	: E200.8	
Analysis Date: 04/07/10 09:54	Units:	mg/L			Prep Info:	Prep Da	ite:		Prep Method	i:	
Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Aluminum	0.102	0.10	0.1	0.0012	101	70	130				
Antimony	0.102	0.0050	0.1		102	70	130				
Arsenic	0.0961	0.0050	0.1		96	70	130				
Barium	0.102	0.10	0.1		102	70	130				
Beryllium	0.101	0.0010	0.1		101	70	130				
Cadmium	0.0984	0.0010	0.1		98 _f	70	130				
Chromium	0.0950	0.010	0.1		95	70	130				
Cobalt	0.0941	0.010	0.1	0.0001852	94	70	130				
Copper	0.0937	0.010	0.1	0.000275	93	70	130				
Lead	0.101	0.010	0.1		101	70	130				
Manganese	0.100	0.010	0.1	0.0008164	99	70	130				
Mercury	0.00182	0.0010	0.002		91	70	130				
Nickel	0.0925	0.010	0.1		93	70	130				
Silver	0.0373	0.0050	0.04	0.0006242	92	70	130				
Thallium	0.100	0.0050	0.1		100	70	130				
Vanadium	0.0952	0.10	0.1	0.0000566	95	70	130				
Zinc	0.102	0.010	0.1	0.003516	98	70	130				

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Run ID :Run Order: ICPMS204-B_1004	106A: 81	SampType:	Sample Matri	x Spike Duplicate	,	Sample I	D: H100400	32-005BMSD	Method	l: E200. 8	
Analysis Date: 04/07/10 09:59	Units: r	ng/L			Prep Info:	Prep Da	te:		Prep Method	ł:	
Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Aluminum	0.105	0.10	0.1	0.0012	103	70	130	0.1024	2.1	20	
Antimony	0.103	0.0050	0.1		103	70	130	0.1017	1.2	20	
Arsenic	0.0974	0.0050	0.1		97	70	130	0.0961	1.3	20	
Barium	0.103	0.10	0.1		103	70	130	0.1022	1.1	20	
Beryllium	0.100	0.0010	0.1		100	70	130	0.1005	0.4	20	
Cadmium	0.0994	0.0010	0.1		99	70	130	0.09844	1	20	
Chromium	0.0979	0.010	0.1		98	70	130	0.09502	2.9	20	
Cobalt	0.0963	0.010	0.1	0.0001852	96	70	130	0.09412	2.3	20	
Copper	0.0950	0.010	0.1	0.000275	95	70	130	0.09368	1.4	20	
Lead	0.101	0.010	0.1		101	70	130	0.1007	0.4	20	
Manganese	0.103	0.010	0.1	0.0008164	102	70	130	0.1003	2.5	20	

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted regovery limits

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order:

H10040032

Project:

Long-Term RI/FS Residential Well Samplin

BatchID: R61389

Run ID :Run Order: ICPMS204-B_1004	406A: 81	SampType:	Sample Matri	x Spike Duplicate	Sample ID: H10040032-005BMSD Method: E200.8							
Analysis Date: 04/07/10 09:59	Units: r	mg/L			Prep Info:	Prep Da	ite:		Prep Method	1 :		
Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Mercury	0.00192	0.0010	0.002		96	70	13,0	0.00182	5.1	20	,	
Nickel	0.0948	0.010	0.1		95	70	130	0.09252	2.5	20		
Silver	0.0379	0.0050	0.04	0.0006242	93	70	130	0.03732	1.6	20		
Thallium	0.101	0.0050	0.1		101	70	130	0.1	1.2	20		
Vanadium	0.0984	0.10	0.1	0.0000566	98	70	130	0.09522		20		
Zinc	0.105	0.010	0.1	0.003516	102	70	130	0.1015	3.5	20		

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B



Client: Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project: Long-Term RI/FS Residential Well Samplin

BatchID: R61433

Run ID :Run Order: ICP1-HE_100407B: 4		SampType:	Initial Calibra	tion Verification S	standard	Sample	ID: ICV		Method: E200.7	
Analysis Date: 04/07/10 16:08	Units: m	g/L		•	Prep Info:	Prep Da	ate:		Prep Method:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Tellurium	2.00	0.10	2		100	95	105			
Associated samples: H10040032-001B; H100	40032-002B; I	H10040032	·003B; H1004	0032-004B; H100	40032-005B	•				
Run ID :Run Order: ICP1-HE_100407B: 6		SampType:	Continuing C	alibration Verifica	tion Standard	d Sample	ID: CCV-1	·	Method: E200.7	
Analysis Date: 04/07/10 16:15	Units: m	g/L			Prep Info:	Prep Da	ite:		Prep Method:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Tellurium	2.56	0.10	2.5		103	95	105			
Associated samples: H10040032-001B; H100	140032-002B; I	110040032	·003B; H1004	0032-004B; H100	40032-005B					
Run ID :Run Order: ICP1-HE_100407B: 9		SampType:	Interference (Check Sample A		Sample	ID: ICSA		Method: E200.7	
Analysis Date: 04/07/10 16:24	Units: m	g/L			Prep info:	Prep Da	ite:		Prep Method:	
Analytes <u>1</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Tellurium	0.0341	0.10				0	0			
Associated samples: H10040032-001B ; H100	140032-002B; I	110040032	·003B; H1004	0032-004B; H100	40032-005B					
Run ID :Run Order: ICP1-HE_100407B: 10		SampType:	Interference (Check Sample AB		Sample	ID: ICSAB		Method: E200.7	
Analysis Date: 04/07/10 16:27	Units: m	g/L			Prep Info:	Prep Da	ite:		Prep Method:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Tellurium	1.02	0.10	1		102	80	120			
Associated samples: H10040032-001B; H100	40032-002B; I	110040032	003B; H1004	0032-004B; H100	40032-005B					
Run ID :Run Order: ICP1-HE_100407B: 11		SampType:	Continuing C	alibration Verifica	tion Standard	l Sample	ID: CCV		Method: E200.7	
Analysis Date: 04/07/10 16:31	Units: m	g/L			Prep Info:	Prep Da	ite:		Prep Method:	
Analytes <u>1</u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Tellurium	2.51	0.10	2.5		100	90	110		3	

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

Date: 15-Apr-10

J - Analyte detected below quantitation limits

R - RPD outside accepted regovery limits



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order:

H10040032

RatchID: R61433

Run ID :Run Order: ICP1-HE_100407B: 13		SampType:	Method Blank	(Sample	ID: ICB		Method	: E200.7	
Analysis Date: 04/07/10 16:38	Units: n	ng/L			Prep Info:	Prep Da	ite:		Prep Method	i:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Tellurium	ND	0.01									
Associated samples: H10040032-001B; H100	40032-002B;	H10040032	003B; H1004	0032-004B; H1004	0032-005B						
Run ID :Run Order: ICP1-HE_100407B: 14		SampType:	Laboratory Fe	ortified Blank		Sample	ID: LFB	, ·	Method	i: E200.7	
Analysis Date: 04/07/10 16:41	Units: n	ng/L			Prep Info	: Prep Da	nte:		Prep Method	d:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC_	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Tellurium	0.452	0.10	0.5	,	90	85	115	·			
Associated samples: H10040032-001B; H100	40032-002B;	H10040032-	003B; H1004	0032-004B; H1004	0032-005B						
Run ID :Run Order: ICP1-HE_100407B: 20		SampType:	Sample Matri	x Spike		Sample	ID: H10040 0	32-005BMS2	Method	i: E200.7	
Analysis Date: 04/07/10 16:59	Units: n	ng/L			Prep Info:	Prep Da	ite:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Tellurium	0.935	0.025	1		93	70	130				
Associated samples: H10040032-001B; H100	40032-002B;	H10040032-	003B; H1004	0032-004B; H1004	0032-005B						
Run ID :Run Order: ICP1-HE_100407B: 21	4-4 -	SampType:	Sample Matri	x Spike Duplicate		Sample	ID: H10040 0	32-005BMSD2	Method	: E200.7	
Analysis Date: 04/07/10 17:02	Units: n	ng/L			Prep Info:	: Prep Da	ite:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Tellurium	0.874	0.025	1		87	70	130	0.9348	6.7	20	
Associated samples: H10040032-001B; H100	40032-002B;	H10040032	003B; H1004	0032-004B; H1004	0032-005B						
Run ID :Run Order: ICP1-HE_100407B: 37		SampType:	Interference (Check Sample A		Sample	ID: ICSA		Method	i: E200.7	i
Analysis Date: 04/07/10 17:51	Units: n	ng/L			Prep Info:	: Prep Da	ite:		Prep Method	i:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Tellurium	0.0261	0.10				0	0				

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

N:- Analyte concentration was not sufficiently high to calculate RPD

Date: 15-Apr-10

J - Analyte detected below quantitation limits

R - RPD outside accepted regovery limits



Client:

Project:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order:

H10040032

Long-Term RI/FS Residential Well Samplin

BatchID: R61433

Run ID :Run Order: ICP1-HE_100407B: 38 SampType: Interference Check Sample AB Sample ID: ICSAB

Prep Method: Units: mg/L Prep Date: Prep Info:

Analysis Date: 04/07/10 17:54 %RPD RPDLimit Analytes 1 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val Qual Tellurium 0.10 99 80 120 0.991

Associated samples: H10040032-001B; H10040032-002B; H10040032-003B; H10040032-004B; H10040032-005B

Date: 15-Apr-10

Method: E200.7



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order:

H10040032

RatchID: R61467

Project: Long-Ter	rm RI/FS Residential	Well Sampl	lin B	atchid: Ro	1467						
Run ID :Run Order: ICPMS204	4-B_100408A: 8	SampType:	Initial Calibra	tion Verification S	Standard	Sample	ID: QCS ST	D	Method	l: E200. 8	
Analysis Date: 04/08/10 10:43	Units:	mg/L			Prep Info	: Prep Da	ite:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.0516	0.0050	0.05		103	90	110	,	1		
Associated samples: H1004003	32-001B; H10040032-005I	3									
Run ID :Run Order: ICPMS204	4-B_100408A: 9	SampType:	Interference (Check Sample A		Sample	ID: ICSA		Method	: E200.8	
Analysis Date: 04/08/10 10:49	Units:	mg/L			Prep Info	: Prep Da	ate:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	7.00 E -05	0.0050						,···			
Associated samples: H1004003	32-001B; H10040032-005!	3									
Run ID :Run Order: ICPMS204	4-B_100408A: 10	SampType:	Interference (Check Sample AB		Sample	ID: ICSAB		Method	l: E200.8	
Analysis Date: 04/08/10 10:54	Units:	mg/L			Prep Info	: Prep Da	ate:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.00990	0.0050	0.01		99	70	130		-		·
Associated samples: H1004003	32-001B; H10040032-005i	3	•••••								
Run ID :Run Order: ICPMS204	1-B_100408A: 16	SampType:	Method Blani	K		Sample	ID: ICB		Method	: E200.8	·
Analysis Date: 04/08/10 11:26	Units:	mg/L			Prep Info	: Prep Da	ate:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.001			:						,
Associated samples: H1004003	32-001B; H10040032-005I	3						,			
Run ID :Run Order: ICPMS204	I-B_100408A: 17	SampType:	Laboratory F	ortified Blank	,	Sample	ID: LFB	A	Method	: E200.8	
Analysis Date: 04/08/10 11:31	Units:	mg/L			Prep Info	: Prep Da	ate:		Prep Method	l:	
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.0491	0.0050	0.05		98	85	115		,		
				~							

Qualifiers:

ND - Not Detected at the Reporting Limit

Associated samples: H10040032-001B; H10040032-005B

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

Date: 15-Apr-10

J - Analyte detected below quantitation limits

R - RPD outside accepted eggery limits



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: H10040032

Project:

Long-Term RI/FS Residential Well Samplin

BatchID: R61467

Run ID :Run Order: ICPMS204-B_100408A: 72 SampType: Sample Matrix Spike Sample ID: H10030384-005CMS Method: E200.8

Analysis Date: 04/08/10 18:05 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 1 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Selenium 0.0506 0.0050 0.05 101 70 130

Associated samples: H10040032-001B; H10040032-005B

Sample ID: H10030384-005CMSD Method: E200.8 Run ID :Run Order: ICPMS204-B 100408A: 73 SampType: Sample Matrix Spike Duplicate Units: mg/L Prep Info: Prep Date: Prep Method: Analysis Date: 04/08/10 18:11 PQL. SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Analytes 1 Result 2.6 98 70 0.05055 20 0.0492 0.0050 0.05 130 Selenium

Associated samples: H10040032-001B; H10040032-005B

Date: 15-Apr-10

2



Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT Client:

Work Order: H10040032

Long-Term RI/FS Residential Well Samplin **Project:**

BatchID: R61581

Method: E200.8 Run ID :Run Order: ICPMS204-B 100414A: 8 SampType: Initial Calibration Verification Standard Sample ID: QCS STD Analysis Date: 04/14/10 01:38 Units: mg/L Prep Info: Prep Date: Prep Method: PQL SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Analytes 1 Result SPK value Qual Selenium 0.0508 0.0050 0.05 102 110 Associated samples: H10040032-002B; H10040032-003B; H10040032-004B Method: E200.8 Run ID :Run Order: ICPMS204-B 100414A: 9 SampType: Interference Check Sample A Sample ID: ICSA Prep Date: Prep Method: Analysis Date: 04/14/10 01:43 Units: ma/L Prep Info: Analytes 1 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Selenium 0.000281 0.0050 Associated samples: H10040032-002B; H10040032-003B; H10040032-004B Run ID :Run Order: ICPMS204-B 100414A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8 Prep Info: Prep Date: Prep Method: Analysis Date: 04/14/10 01:48 Units: mg/L **PQL** %RPD RPDLimit Analytes 1 Result SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val Qual Selenium 0.0114 0.0050 0.01 114 70 130 Associated samples: H10040032-002B; H10040032-003B; H10040032-004B Run ID :Run Order: ICPMS204-B 100414A: 16 SampType: Method Blank Sample ID: ICB Method: E200.8 Analysis Date: 04/14/10 02:19 Prep Info: Prep Date: Prep Method: Units: mg/L RPD Ref Val %RPD RPDLimit Analytes 1 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit Qual Selenium ND 0.001 Associated samples: H10040032-002B; H10040032-003B; H10040032-004B Run ID :Run Order: ICPMS204-B 100414A: 17 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8 Analysis Date: 04/14/10 02:24 Prep Info: Prep Date: Prep Method: Units: ma/L PQL HighLimit RPD Ref Val Result SPK value SPK Ref Val %REC %RPD RPDLimit Analytes 1 LowLimit Qual Selenium 0.0477 0.0050 0.05 95 85 115 Associated samples: H10040032-002B; H10040032-003B; H10040032-004B

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted regovery limits

A - Analyte concentration greater than three times the spike amount



Client:

Montana Environmental Custodial Trust ANALYTICAL QC SUMMARY REPORT

Work Order: Project:

H10040032

Long-Term RI/FS Residential Well Samplin

BatchID: R61581

Run ID :Run Order: ICPMS204-B_100414A; 20: SampType: Sample Matrix Spike Sample ID: H10040032-002BMS

Method: E200.8

Analysis Date: 04/14/10 02:40

Units: mg/L

Prep Info: Prep Date:

Prep Method:

Analytes 1

Result

POL SPK value SPK Ref Val %REC

LowLimit HighLimit RPD Ref Val

Date: 15-Apr-10

0.0490

0.05

98

70 130 %RPD RPDLimit Qual

Selenium

0.0050 Associated samples: H10040032-002B; H10040032-003B; H10040032-004B

PQL

0.0050

Run ID :Run Order: ICPMS204-B_100414A; 21

SampType: Sample Matrix Spike Duplicate

Sample ID: H10040032-002BMSD

Method: E200.8

Analysis Date: 04/14/10 02:45

Units: mg/L

Prep Info:

Prep Date:

Prep Method:

Analytes 1

Result

SPK value SPK Ref Val

0.05

%REC 98

LowLimit HighLimit RPD Ref Val

0.04896

0.1

%RPD RPDLimit Qual

Selenium

Associated samples: H10040032-002B; H10040032-003B; H10040032-004B

0.0490

Workorder Receipt Checklist



Montana Environmental Custodial Trust

H10040032

Login completed by: Tracy L. Lorash		Date	Received: 4/2/2010					
Reviewed by: BL2000\wjohnson		Re	ceived by: rft					
Reviewed Date: 4/6/2010	Carrier name: Hand Del							
Shipping container/cooler in good condition?	Yes 🔽	No 🔲	Not Present					
Custody seals intact on shipping container/cooler?	Yes	No 🔲	Not Present ☑					
Custody seals intact on sample bottles?	Yes	No 🔲	Not Present ☑					
Chain of custody present?	Yes	No 🗹						
Chain of custody signed when relinquished and received?	Yes 🗸	No 🔲						
Chain of custody agrees with sample labels?	Yes 🗸	No 🔲						
Samples in proper container/bottle?	Yes 🗹	No 🔲						
Sample containers intact?	Yes 🗹	No 🔲						
Sufficient sample volume for indicated test?	Yes 🗸	No 🗌						
All samples received within holding time?	Yes 🔽	No 🔲						
Container/Temp Blank temperature:	8.0°C From Field							
Water - VOA vials have zero headspace?	Yes 🗌	No 🔲	No VOA vials submitted					
Water - pH acceptable upon receipt?	Yes 🗸	No 🗌	Not Applicable					

Contact and Corrective Action Comments:

None